

## Appendix C.

# Statistical Methodology

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### MAIL LIST MODEL

Classification analysis was performed to predict the probability that an addressee on the 1992 mail list operated a farm, and thereby separated the preliminary mail list into probable farm and probable nonfarm classes. The analysis was used to reduce the preliminary census mail list of 3.78 million records to a final mail list size of 3.55 million records. All 3.55 million addresses on the final mail list received a census of agriculture report form.

Records from the 1987 final census mail list were used to build a 1992 prediction model for the 1992 analysis. Classification and Regression Trees (CART) software analyzed characteristics of known 1987 farm and nonfarm operations to determine which were most useful in predicting farm and nonfarm classes. Record characteristics such as the source of the mail list record, number of source lists on which the record appeared, expected value of agricultural sales, and geographic location were used to separate mail list records into model groups. (Sources included the previous agriculture census mail list, the Internal Revenue Service administrative records, U.S. Department of Agriculture, and special commodity lists.) The proportion of 1987 census farm records in each model group was calculated to provide an estimate of the probability that an addressee in the group operated a farm.

After the model groups were defined, each address record on the 1992 preliminary mail list was assigned to a model group by matching record characteristics to model group characteristics. Records belonging to the groups with the highest farm probability were those more likely to be farms according to the classification tree methodology. The model, followed by analyst reviews, was used to remove 229,700 records from the preliminary mail list (those in model groups with the lowest farm probability), and thereby designated the 3.55 million records with the highest farm probability to receive the census report form. This procedure was used to obtain a more complete census enumeration of farm operations without excessive respondent burden and data collection cost.

### CENSUS SAMPLE DESIGN

Each of the 3.55 million name and address records on the census mail list was designated to receive one of three different types of census report forms. The three forms were the nonsample form, the screener form, and the

sample form. Sections 1 through 20 and 27 through 32 of the sample form are identical to sections on the nonsample form. The sample form, sections 21 through 26, contains additional questions on usage of fertilizers and chemicals, farm production expenditures, value of machinery and equipment, value of land and buildings, and farm-related income. The screener form is identical to the nonsample form with questions added in section 1 to allow quick identification of nonfarm addresses. These three different forms were used to reduce the response burden of the census, while providing reliable information on a large number of data items.

The sample form was mailed to all mail list records in Alaska, Hawaii, and Rhode Island, and to a sample of records in other States selected from the final mail list. Addresses were selected into the sample with certainty (1) if they were expected to have large total value of agricultural products sold or large acreage, (2) if they were multiunit operations (i.e., separate farms in more than one location), (3) if they had other special characteristics, or (4) if they were in a county with less than 100 farms in 1987. Other addresses in counties containing 100 to 199 farms in 1987 were systematically sampled at a rate of 1 in 2, and other addresses in counties containing 200 farms or more in 1987 were systematically sampled at a rate of 1 in 6. This differential sampling scheme was used to provide reliable data for the sample sections of the report form for all counties. When a nonsample large farm was identified during processing, a supplemental form that contained the additional sample data inquiries was mailed.

To determine which mail list records would receive the screener form, all mail list records not designated for the sample were sorted by model group farm probability as specified by the mail list model. The 412,000 mail list records in the model groups with the lowest probability of being farms and with an expected total value of agricultural product sales less than \$25,000 were designated to receive the screener report form. The remaining mail list records received the nonsample report form.

### CENSUS ESTIMATION

The 1992 Census of Agriculture used two types of statistical estimation procedures. These estimation procedures accounted for nonresponse to the data collection and for the sample data collection. These procedures are necessary because some farm operators never respond to

the census despite numerous attempts to contact them, and the estimates for the sample data are based on a sample of farm operators rather than a full enumeration.

## Whole Farm Nonresponse Estimation

A statistical estimation procedure was used to account for nonrespondent farm operators to the census. We excluded large and unique farm operations that received intensive telephone followup during census processing, assuming complete response from them. A stratified systematic sample of remaining census nonrespondents were contacted by enumerators using a computer-assisted telephone interview system. Five sample strata were defined based on expected value of sales, previous census status, and whether the record was identified by the mail list model to receive the screener report form. The nonresponse survey telephone interview was designed to provide sufficient information to determine the farm status of each record.

In situations where the nonresponse survey case could not be contacted, the contact person refused to cooperate, or when no phone number could be obtained, a screener report form was sent by certified mail.

Estimates of the proportion of census nonrespondents that operated farms were made for each stratum in the State using survey results and applied to the total number of census nonrespondents in that stratum. The number of census nonrespondents that operated farms for each county by stratum was then derived. This estimation procedure is based on the assumption that the distribution of farms in a stratum by county is the same for census nonrespondents as for census respondents.

Certain census respondent farms which exhibited "rare" commodities were designated as "ineligible" to represent census nonrespondent farms and were excluded from the nonresponse weighting operation. The procedure explained below was performed with only the eligible respondent cases: Within each stratum in a county, a noninteger nonresponse weight was calculated and assigned to each eligible respondent farm record. The noninteger nonresponse weight is the ratio of the sum of the estimated number of nonrespondent farms from the nonresponse survey and the number of eligible census respondent farms to the number of eligible census respondent farms. Stratum controls were established to ensure that this weight was never greater than 2.0. The noninteger nonresponse weight was used in the calculation of the final weight for the sample items. The noninteger nonresponse weight was randomly rounded to an integer weight of either 1 or 2 for each record for tabulating the complete count items for publication.

Table A quantifies the effect of the nonresponse estimation procedure on selected census data items. The percentages in these tables are the percents of the census values contributed by nonresponse estimation. These indicate the potential for bias in published figures resulting from nonresponse to the census. The estimates provided

in these tables do not reflect the effect of item nonresponse to individual census data items. The effect of item nonresponse is discussed in the Census Nonsampling Error section.

**Table A. Percent of State Totals Contributed by Whole Farm Nonresponse Estimation: 1992**

Item	Percent of total
Farms ..... number.	11.2
Land in farms ..... acres.	8.7
Estimated market value of land and buildings <sup>1</sup> ..... \$1,000.	6.5
Market value of agricultural products sold ..... \$1,000.	3.7
Harvested cropland ..... acres.	8.0
Corn for grain or seed ..... acres.	4.1
Wheat for grain ..... acres.	3.6
Livestock and poultry inventory:	
Cattle and calves ..... number.	8.0
Hogs and pigs ..... number.	4.7
Hens and pullets of laying age ..... number.	8.8

<sup>1</sup>Data are based on a sample of farms.

## Sample Estimation

Sample data estimates the population totals that would have resulted from a complete census for the items in sections 21 through 26 of the sample report form. The estimates were obtained from a ratio estimation procedure that resulted in the assignment of a weight to each respondent record containing sample items. For any given county, a sample item total was estimated by multiplying the data items for each farm in the county by the corresponding sample weight and summing over all sample records in the county.

Each respondent sample farm was assigned a sample weight for use in producing estimates for all sample items. For example, if the weight given to a sample farm had the value 6, all sample data items reported by that farm would be multiplied by 6. The weight assigned to a sample certainty farm was 1.

Other than certainty farms, within a county, the ratio estimation procedure for farms was performed in three steps using three variables. The first variable contained eight 1992 total value of agricultural production (TVP) groups. Both the second and third variables, Standard Industrial Classification (SIC) code and farm acreage, contained two groups. The three sets of groups were as follows:

TVP	SIC	Acres
\$1 to \$999	01 All crops	1 to 69
\$1,000 to \$2,499	02 All livestock	70 or more
\$2,500 to \$4,999		
\$5,000 to \$9,999		
\$10,000 to \$24,999		
\$25,000 to \$49,999		
\$50,000 to \$99,999		
\$100,000 or more		

The first step in the estimation procedure was to classify the sample records into 32 mutually exclusive initial post strata formed by the three sets of groups. The total and sample farm counts were expanded to account for nonresponse. Each cell containing sample farm records was assigned an initial sample weight equal to the ratio of the total farm count to the sample farm count. This weight was approximately equal to the inverse of the probability of selecting a farm for the census sample.

The second step in the estimation procedure was to combine, if necessary, the 32 initial post strata to increase the reliability of the ratio estimation procedure. Any stratum that contained less than 10 sample farms after nonresponse adjustment or had a weight greater than two times the mail sample rate was collapsed with another stratum. The mail sample rate was either 2 or 6, depending on whether the county had a 1 in 2 or 1 in 6 sample selection rate. The collapsing occurred within the initial 32 post strata according to a specified collapsing pattern. After the collapsing process was completed, new total farm counts and sample farm counts were computed from each of the final post strata and were used to calculate final sample weights.

The final step consisted of assigning the noninteger final post stratum weight to the sample farm records in each post stratum. The weight is the ratio of total farm count to sample farm count in each final post stratum. The noninteger sample weight, the product of the noninteger final post stratum weight and the nonresponse weight, was randomly rounded to an integer weight for tabulation. If, for example, the final weight for the farms in a particular post stratum was 7.2, then 0.2 or one-fifth of the sample farms in this post stratum were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

## CENSUS SAMPLING ERROR

The sample for the 1992 Census of Agriculture is only one of a large number of possible samples of the same size that could have been selected using the same sample design. Sample refers to the sample for both the nonresponse survey and the selection of farms to receive the sample report forms. Estimates derived from all the possible samples would differ from each other only by random variation.

The standard error or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The percent relative standard error of an estimate is defined as 100 times the standard error of the estimate divided by the value of the estimate.

If all possible samples were selected, each of the samples were surveyed under essentially the same conditions, and an estimate and its standard error were calculated from each sample, then:

1. Approximately 90 percent of the intervals from 1.65 standard errors below the estimate to 1.65 standard errors above the estimate would include the average value of all possible samples.
2. Approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the average value of all possible samples.

The following example illustrates the computations necessary for producing a confidence interval for an estimate. Assume that the estimate of number of farms for a State is 94,382 and the relative standard error of the estimate is .1 percent (0.001). Multiplying 94,382 by 0.001 yields 94, the standard error; therefore, a 90-percent confidence interval is 94,227 to 94,537 (i.e., 94,382 plus or minus 1.65 x 94). If corresponding confidence intervals were constructed for all possible samples of the same size and design, approximately 90 percent of these intervals would contain the figure obtained from a complete enumeration. Similarly, a 95-percent confidence interval is 94,198 to 94,566 (i.e., 94,382 plus or minus 1.96 x 94).

Census items were classified as either complete count or sample count items. Complete count items were asked of all farm operators. Examples of complete count items were land in farms, harvested cropland, livestock inventory and sales, crop acreage, quantities harvested and crop sales, land use, irrigation, government loans and payments, conservation acreage, type of organization, and operator characteristics.

Sample count items were asked only of a sample of farm operators. These items appeared only in sections 21 through 26 of the sample report form. Sample count items were included under the following section headings: commercial fertilizers, chemicals, production expenses, farm machinery and equipment, value of land and buildings, and farm-related income.

Variability, measured as percent relative standard error, in the estimates of complete count items is due only to the nonresponse survey estimation procedure. Variability in the estimates of sample count items is due to both the nonresponse survey estimation procedure and the census sample selection and estimation procedure. Thus, variability in the sample count item estimates tends to be larger than the variability in the complete count item estimates.

Table B provides the generalized reliability estimates of the estimated number of farms in a county reporting complete count and sample count items. The top half of the table shows the percent relative standard error for estimated number of farms in a county reporting a complete count item and the bottom half a sample count item. These are derived from regression equations. Separate regression equations were used for complete count items and sample count items. Each regression equation was fit with the estimated number of farms in a county reporting an item as the independent variable and the relative variance of that estimate as the dependent variable for all counties in the State. For sample count items, only data

from counties sampled at a rate of 1 in 6 are used in the estimation of the regression equation.

**Table B. Reliability Estimates for Number of Farms in a County Reporting a Complete Count Item or Sample Count Item: 1992**

Farms	Relative standard error of estimate (percent)
<b>COMPLETE COUNT ITEM</b>	
Number of farms reporting:	
25	5.5
50	3.5
75	2.5
100	1.7
150	1.4
200	1.2
300	1.0
500	.8
750	.6
1,000	.6
1,500	(X)
2,000	(X)
<b>SAMPLE COUNT ITEM</b>	
Number of farms reporting:	
25	40.7
50	28.4
75	22.9
100	19.6
150	15.6
200	13.1
300	10.0
500	6.7
750	4.0
1,000	1.4
1,500	(X)
2,000	(X)

To illustrate the use of this table, assume that the estimate of the number of farms reporting hogs and pigs for a particular county, as given in county table 15, is 89. Since hogs and pigs is a complete count data item, refer to the first part of table B and use the estimated percent relative standard error of the estimate from the row with farm count equal to or just less than the estimated number of farms, 89. For this example, the percent relative standard error of the estimate comes from the row for 75 farms reporting. For sample count items, follow the same procedure using the second part of table B. For counties with fewer than 100 farms in the 1987 Census of Agriculture, variability in sample count item estimates comes only from nonresponse survey estimation procedures; thus, the estimated relative standard error for a sample count item in these counties may be obtained using the first part of table B.

Table C presents the percent relative standard error of selected State data items for all farms, and table D presents the percent relative standard error of selected State data items for all farms with sales of \$10,000 or more.

Table E presents the percent standard error for percent change in State totals from 1987 to 1992. The general

purpose of the percent change estimate is to provide a relative measure of the difference in a characteristic between censuses. The relative change for a given characteristic is defined as the ratio of the difference of the 1992 and the 1987 estimate for that characteristic to the 1987 estimate. This ratio is multiplied by 100 to obtain the percent change. The percent standard error of a percent change estimate, then, is the standard error of the ratio multiplied by 100.

Table F presents the percent relative standard error for State and county totals for selected data items. The percent relative standard error of the estimate for the same item differs among counties in the State. Reasons for this are differences among counties in (1) the total number of farms, (2) the number of large farms included with certainty, (3) the size classifications of the farms sampled, (4) the amount of nonresponse, (5) the general agricultural characteristics, and (6) the specific characteristic being measured.

## CENSUS NONSAMPLING ERROR

The accuracy of the census counts are affected jointly by sampling errors, described in the previous section, and nonsampling errors. Extensive efforts were made to compile a complete and accurate mail list for the census, to design an understandable report form with instructions, and to minimize processing errors through the use of quality control measures on specific operations. Nonsampling errors arise from incompleteness of the census mail list, duplication in the mail list, incorrect data reporting, errors in editing of reported data, and errors in imputation for missing data. These specific nonsampling errors are further discussed in this section. Evaluation studies will be conducted to measure the extent of certain nonsampling errors such as coverage error and classification error.

## Census Coverage

The main objective of the census of agriculture is to obtain a complete and accurate enumeration of U.S. farms with accurate data on all aspects of the agricultural operation. However, the high cost and availability of resources for enumeration place restrictions on feasible data collection methodologies. The past six agriculture censuses have been conducted by mail enumeration with telephone contact for selected nonrespondents. The completeness of such an enumeration thus depends to a large extent on the coverage of farm operations by the census mail list.

The past five censuses of agriculture have included approximately 91 percent of farms in the United States and approximately 96 percent of agriculture production. Complete enumeration of agricultural operations satisfying the farm definition of \$1,000 or more in agricultural sales is complicated by fluctuations in agricultural operations qualifying for enumeration, the variety of arrangements under which farms are operated, the multiplicity of names used

by an operation, the number of operations in which an operator participates, the accuracy of data reporting, and other factors. A new mail list is compiled for each census because no current single list of agricultural operations is comprehensive.

An evaluation of census coverage has been conducted for each census of agriculture since 1945. The evaluation provides estimates of the completeness of census farm count and major census data items. In addition, the evaluation helps to identify problems in the census enumeration and provide information that can form the basis for improvements. The results of the 1992 Coverage Evaluation program will be published in volume 2, Subject Series (Part 2): Coverage Evaluation.

The evaluation of coverage for the 1992 census was designed to measure four components of error in the census mail list and in farm classification. Mail list error includes two components of error, a measurement of farms not on the census mail list (undercount) and a measurement of farms enumerated more than once in the census (overcount). Classification error includes two components of error, a measurement of farms classified as nonfarms in the census (undercount) and of nonfarms classified as farms in the census (overcount). Classification error arises from reporting and processing errors. Mail list undercount dominates all coverage errors. Net coverage error is defined as the difference between undercounted and overcounted farms. Measurements of these errors, as well as a description of the complete coverage program, will be available in the Coverage Evaluation report.

## **Mail List Coverage**

A major problem with mail enumeration for the census of agriculture is the difficulty encountered in compiling a complete mail list. The percentage of farms included on the census mail list varies considerably by State. Several reasons have contributed to farm operator names not being included on the census mail list—the operation may have been started after the mail list was developed, the operation may be so small as not to appear in any of the agriculture-related source lists used in compiling the census list, or the operation may have been falsely classified as a nonfarm prior to mailout. A large proportion of the farms not included on the mail list are small in both acres and sales of agricultural products.

The 1992 Census of Agriculture Coverage Evaluation used the area segment sample of the 1992 June Agricultural Survey (JAS) of the National Agricultural Statistical Service (NASS) to estimate farms not on the census mail list. The Census Bureau contracted with NASS to augment the JAS data collection. The survey data collected by NASS will be protected under the confidentiality of title 13, U.S. Code. These JAS survey records were matched to the census mail list. Records that did not match were mailed a census of agriculture report form to estimate mail list

coverage. Estimates of farms not on the census mail list are computed using a capture-recapture dual frame estimator which will be described in the Coverage Evaluation report mentioned earlier.

Table G provides coverage evaluation estimates for one component of coverage error associated with the census of agriculture; that is, the error due to farms not on the census mail list. Also provided are estimates of selected characteristics of farms not on the mail list, estimates of characteristics of farms not on the mail list as a percentage of total farms in the State, and the percent relative standard error associated with each estimate. The estimate of total farms in the State is based on census farm count plus the estimated number of farms not on the census mail list. This estimate of total farms in the State was not adjusted for the components of error associated with classification and list duplication error. Estimates of these errors will be made at the regional, rather than the State level, and will be provided in the Coverage Evaluation report mentioned earlier.

## **Respondent and Enumerator Error**

Incorrect or incomplete responses to the mailed census report form or to the questions posed by a telephone enumerator introduce error into the census data. Such incorrect information can lead, in some cases, to incorrect classification of farms. This type of reporting error is measured by the Classification Error Survey discussed later in this section. To reduce all types of reporting error, detailed instructions for completing the report form were provided to each addressee. Questions were phrased as clearly as possible based on tests of the census report form and each respondent's answers were checked for completeness and consistency.

## **Item Nonresponse**

As information flows from data collection to tabulation, various types of item nonresponses are identified on the report forms. Nonresponse to particular questions on the report form that logically should be present may create a type of nonsampling error in both complete count and sample count data. When information from reporting farms is used to edit or impute for item nonresponse, the data may be biased due to characteristics of the nonreporting respondents differing from those reporting the item. Any attempt to correct the data items may not completely reflect this difference either at the element level (individual farm operation) or on the average.

## **Processing Error**

All phases of processing for each report form are sources for the introduction of nonsampling error. The processing of the report forms includes clerical screening for farm activity, computerized check-in of report forms and follow-up of nonrespondents, keying and transmittal of

completed report forms, computerized editing of inconsistent and missing data, review and correction of individual records referred from the computer edit, review and correction of tabulated data, and electronic data processing. These operations undergo a number of quality control checks to ensure as accurate an application as possible, yet some errors are not detected and corrected.

## Classification Error

An evaluation study of classification errors was conducted in the 1992 Census of Agriculture as part of the census coverage evaluation program. A sample of census mail list respondents was selected, and these addresses were reenumerated to determine whether they were a farm or nonfarm. A farm status determination was made based on the evaluation report form and compared with the census farm status which was based on the data reported on the report form. Differences in status were reconciled.

In past censuses, the proportion of farms undercounted due to classification errors was higher for farms with small values of sales. For the 1987 census, the classification error rate was higher for (1) farms with small values of sales, (2) farms with a small number of acres, (3) full-owner farms than part-owner or tenant farms, (4) operators with principal occupation other than farming, and (5) males than females. Results from the 1992 Classification Error Survey will be published in the Coverage Evaluation report.

## EDITING DATA AND IMPUTATION FOR ITEM NONRESPONSE

The Census of Agriculture Complex Edit and Imputation System performs the following functions:

- Ensuring reasonable relationships between/among data items, values for various sizes of farms, and combinations of commodities.
- Ensuring necessary consistencies are present. There are more than 70 distinct consistency requirements.
- Ensuring geographic, legal, and physical constraints are met.

The system must perform these and similar functions for 900 data keycodes for sample records and 850 data keycodes for nonsample records.

For the 1992 Census of Agriculture, as in previous censuses, all reported data were keyed and then edited by computer. The edits were used to determine whether the reports met the minimum criteria to be counted as farms in the census. The complex edit and imputation system provided the basis for deciding to accept, impute (supply), delete, or alter the reported value for each data record item.

Whenever possible, edit imputations, deletions, and changes were based on component or related data on the respondent's report form. For some items, such as operator characteristics, data from the previous census were used when available. Values for other missing or unacceptable reported data items were calculated based on reported quantities and known price parameters.

When these and similar methods were not available and values had to be supplied, the imputation process used information reported for another farm operation in a geographically adjacent area with characteristics similar to those of the farm operation with incomplete data. For example, a farm operation that reported acres of corn harvested, but did not report quantity of corn harvested, was assigned the same bushels of corn per acre harvested as that of the last nearby farm with similar characteristics that reported acceptable yields during that particular execution of the computer edit. The imputation for missing items in each section of the report form was conducted separately; thus, assigned values for one operation could come from more than one respondent.

Prior to the imputation operation, a set of default values and relationships were assigned to the possible imputation variables. The relationships and values varied depending on the item being imputed. For example, different default values were assigned for several standard industrial classification and total value of sales categories when imputing hired farm labor expenses. These values and item relationships for the possible imputation variables were stored in the computer in a series of matrices.

Each execution of the computer edit consisted of records from only one State. The computer records were sorted by reported State and county. For a given execution of the edit, the stored entries in the various matrices were retained in memory only until a succeeding record having acceptable characteristics for some sections of the report form was processed by the computer. Then the acceptable responses of the succeeding operation replaced those previously stored. When a record processed through the edit had unreported or unacceptable data, the record was assigned the last acceptable ratio or response from an operation with a similar set of characteristics. Once each execution of the computer edit for a State was completed, the possible imputation variables were reset to the default values and relationships for subsequent executions.

After the initial computer edit, keyed reports not meeting the census farm definition were reviewed to ensure that the data were keyed correctly. Edit referrals were generated for about 25 percent of the reports included as farms; they were reviewed for keying accuracy to ensure that the computer edit actions were correct. If the results of the computer edit were not acceptable, corrections were made and the record was reedited.

**Table C. Reliability Estimates of State Totals for All Farms: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)	
<b>F FARMS AND LAND IN FARMS</b>						
Farms ----- number	17 020	1.1				
Land in farms ----- acres	3 267 188	.8	Total farm production expenses ----- farms	17 022	1.1	
Average size of farm ----- acres	192	1.4	Total farm production expenses ----- \$1,000	308 703	.7	
<b>M MARKET VALUE OF AGRICULTURAL PRODUCTS SOLD</b>						
Total sales (see text) ----- farms	17 020	1.1	Average per farm ----- dollars	18 136	1.3	
\$1,000-----	364 203	.3	Livestock and poultry purchased ----- farms	5 457	2.6	
Average per farm ----- dollars	21 399	1.1	Livestock and poultry purchased ----- \$1,000	54 571	1.9	
<b>F FARM PRODUCTION EXPENSES<sup>1</sup></b>						
Farms by value of sales:			Feed for livestock and poultry ----- farms	10 551	1.6	
Less than \$1,000 (see text) ----- farms	3 249	1.6	Commercially mixed formula feeds ----- farms	101 386	.6	
\$1,000-----	949	1.7	Commercially mixed formula feeds ----- \$1,000	3 326	3.3	
\$1,000 to \$2,499 ----- farms	3 678	1.4	Commercially mixed formula feeds ----- \$1,000	84 944	.7	
\$1,000-----	6 081	1.4	Seeds, bulbs, plants, and trees ----- farms	4 496	2.7	
\$2,500 to \$4,999 ----- farms	3 499	1.3	Commercial fertilizer ----- farms	3 733	1.8	
\$1,000-----	12 487	1.3	Agricultural chemicals ----- farms	9 717	1.8	
\$5,000 to \$9,999 ----- farms	2 848	1.2	Petroleum products ----- farms	11 670	2.8	
\$1,000-----	19 860	1.2	Electricity ----- farms	7 996	2.0	
\$10,000 to \$19,999 ----- farms	1 676	1.2	Hired farm labor ----- farms	6 428	1.8	
\$1,000-----	23 044	1.2	Contract labor ----- farms	16 045	1.2	
\$20,000 to \$24,999 ----- farms	330	1.8	Contract labor ----- \$1,000	15 877	1.4	
\$1,000-----	7 334	1.8	Repair and maintenance ----- farms	1 275	2.1	
\$25,000 to \$39,999 ----- farms	514	1.5	Repair and maintenance ----- \$1,000	4 872	3.1	
\$40,000 to \$49,999 ----- farms	16 055	1.5	Customwork, machine hire, and rental of machinery and equipment ----- farms	5 179	2.6	
\$1,000-----	174	2.1	Customwork, machine hire, and rental of machinery and equipment ----- \$1,000	26 956	1.3	
\$50,000 to \$99,999 ----- farms	7 692	2.1	Interest expense ----- farms	1 180	6.0	
\$1,000-----	433	1.5	Interest expense ----- \$1,000	13 117	1.4	
\$100,000 to \$249,999 ----- farms	30 292	1.4	Secured by real estate ----- farms	19 831	1.8	
\$1,000-----	349	—	Secured by real estate ----- \$1,000	2 391	4.0	
\$250,000 to \$499,999 ----- farms	54 335	—	Not secured by real estate ----- farms	4 452	5.9	
\$1,000-----	160	—	Not secured by real estate ----- \$1,000	3 963	3.0	
\$500,000 or more ----- farms	55 811	—	Cash rent ----- farms	17 179	2.7	
\$1,000-----	110	—	Cash rent ----- \$1,000	2 676	3.7	
Sales by commodity or commodity group:			Property taxes ----- farms	12 898	3.3	
Crops, including nursery and greenhouse crops ----- farms	5 807	1.1	Property taxes ----- \$1,000	1 983	4.3	
\$1,000-----	63 081	.5	All other farm production expenses ----- farms	14 061	1.3	
Grains ----- farms	884	1.1	All other farm production expenses ----- \$1,000	28 251	1.1	
\$1,000-----	9 897	.7				
Corn for grain ----- farms	649	1.3				
\$1,000-----	6 401	.8				
Wheat ----- farms	261	1.6				
\$1,000-----	1 367	.7				
Soybeans ----- farms	119	1.9				
\$1,000-----	1 690	1.1				
Sorghum for grain ----- farms	2	—				
\$1,000-----	(D)	—				
Barley ----- farms	72	2.5				
\$1,000-----	314	1.4				
Oats ----- farms	93	2.8				
\$1,000-----	77	3.7				
Other grains ----- farms	22	4.8				
\$1,000-----	(D)	—				
Cotton and cottonseed ----- farms	—	—				
\$1,000-----	—	—				
Tobacco ----- farms	991	1.6				
\$1,000-----	5 244	1.6				
Hay, silage, and field seeds ----- farms	3 755	1.2				
\$1,000-----	11 963	1.3				
Vegetables, sweet corn, and melons ----- farms	409	1.8				
\$1,000-----	1 628	2.4				
Fruits, nuts, and berries ----- farms	322	1.8				
\$1,000-----	20 422	.5				
Nursery and greenhouse crops ----- farms	272	1.9				
\$1,000-----	12 952	.7				
Other crops ----- farms	308	2.0				
\$1,000-----	976	2.8				
Livestock, poultry, and their products ----- farms	12 633	1.0				
\$1,000-----	301 122	.3				
Poultry and poultry products ----- farms	680	1.1				
\$1,000-----	135 606	.1				
Dairy products ----- farms	420	1.1				
\$1,000-----	39 752	.4				
Cattle and calves ----- farms	11 583	1.0				
\$1,000-----	117 196	.7				
Hogs and pigs ----- farms	587	1.4				
\$1,000-----	3 939	1.3				
Sheep, lambs, and wool ----- farms	1 191	1.2				
\$1,000-----	2 579	1.2				
Other livestock and livestock products (see text) ----- farms	824	1.6				
\$1,000-----	2 050	3.0				
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms	869	1.5	Total ----- farms	86	2.5	
\$1,000-----	2 082	1.6	\$1,000-----	1 161	.5	
<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>						
All farms ----- number	17 022	1.1				
\$1,000-----	49 571	3.4				
Average per farm ----- dollars	2 912	3.5				
Farms with net gains <sup>2</sup> ----- number	8 652	1.8				
\$1,000-----	80 759	1.5				
Average net gain ----- dollars	9 334	2.3				
Farms with net losses ----- number	8 370	1.9				
\$1,000-----	31 188	3.3				
Average net loss ----- dollars	3 726	3.8				
<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>						
Government payments ----- farms	2 158	1.0				
\$1,000-----	3 654	.8				
Other farm-related income <sup>1</sup> ----- farms	2 963	3.8				
\$1,000-----	9 538	6.2				
Customwork and other agricultural services ----- farms	932	7.2				
\$1,000-----	3 731	10.5				
Gross cash rent or share payments ----- farms	866	7.4				
\$1,000-----	1 143	10.5				
Forest products and Christmas trees ----- farms	779	7.8				
\$1,000-----	3 777	10.2				
Other farm-related income sources ----- farms	827	7.1				
\$1,000-----	888	19.6				
<b>COMMODITY CREDIT CORPORATION LOANS</b>						

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-7

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)		
<b>LAND IN FARMS ACCORDING TO USE</b>							
Total cropland	farms--	15 891	All operators	farms--	17 020		
	acres--	1 294 134		acres--	3 267 188		
Harvested cropland	farms--	14 531	Full owners	farms--	12 428		
	acres--	555 818		acres--	1 875 501		
Farms by acres harvested:			Part owners	farms--	3 866		
1 to 9 acres	farms--	3 151		acres--	1 255 176		
	acres--	14 387	Tenants	farms--	726		
10 to 19 acres	farms--	3 385		acres--	136 511		
	acres--	45 025			1.4		
20 to 29 acres	farms--	2 513	<b>TENURE OF OPERATOR</b>				
	acres--	57 023	All operators	farms--	17 020		
30 to 49 acres	farms--	2 518		acres--	3 267 188		
	acres--	91 527	Full owners	farms--	12 428		
50 to 99 acres	farms--	1 838		acres--	1 875 501		
	acres--	119 417	Part owners	farms--	3 866		
100 to 199 acres	farms--	779		acres--	1 255 176		
	acres--	100 912	Tenants	farms--	726		
200 to 499 acres	farms--	294		acres--	136 511		
	acres--	81 609	<b>OWNED AND RENTED LAND</b>				
500 to 999 acres	farms--	43	Land owned	farms--	16 307		
	acres--	27 484		acres--	2 599 981		
1,000 acres or more	farms--	10	Owned land in farms	farms--	16 294		
	acres--	18 434		acres--	2 516 176		
Cropland:			Land rented or leased from others	farms--	4 608		
Pasture or grazing only	farms--	9 795		acres--	756 709		
	acres--	661 609	Rented or leased land in farms	landlords--	8 945		
Other cropland	farms--	2 615		farms--	4 592		
	acres--	76 707	Rented or leased to others	farms--	751 012		
Total woodland	farms--	13 178		acres--	932		
	acres--	1 324 282		acres--	89 502		
Pastureland and rangeland other than cropland and woodland pastured	farms--	5 316	<b>OPERATOR CHARACTERISTICS</b>				
	acres--	517 005	Operators by place of residence:				
Land in house lots, ponds, roads, wasteland, etc.	farms--	10 222	On farm operated		13 053		
	acres--	131 767	Not on farm operated		2 629		
Irrigated land	farms--	312	Not reported		1 338		
	acres--	2 769	Operators by principal occupation:				
Acres irrigated:			Farming		7 169		
1 to 9 acres	farms--	256	Other		9 851		
	acres--	604	Operators by days worked off farm:				
10 to 49 acres	farms--	44	Any		9 594		
	acres--	906	200 days or more		6 985		
50 to 99 acres	farms--	7	Operators by sex:				
	acres--	472	Male	farms--	15 541		
100 to 199 acres	farms--	3		acres--	3 033 670		
	acres--	(D)	Female	farms--	1 479		
200 to 499 acres	farms--	2		acres--	233 518		
	acres--	(D)	Average age of operator				
500 to 999 acres	farms--	—		years--	56.4		
	acres--	(D)	FARMS BY TYPE OF ORGANIZATION				
1,000 acres or more	farms--	—	Individual or family (sole proprietorship)	farms--	15 737		
	acres--	—		acres--	2 846 932		
Harvested cropland irrigated	farms--	305	Partnership	farms--	977		
	acres--	2 459		acres--	284 651		
Pasture and other land irrigated	farms--	10	Corporation:				
	acres--	310	Family held	farms--	191		
Land under federal acreage reduction programs:				acres--	95 817		
Diverted under annual commodity programs	farms--	307	More than 10 stockholders	farms--	5		
	acres--	2 393	10 or less stockholders	farms--	186		
Conservation Reserve or Wetlands Reserve Programs	farms--	222	Other than family held				
	acres--	4 501		farms--	35		
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>				acres--	9 846		
Estimated market value of land and buildings	farms--	17 022	More than 10 stockholders	farms--	5		
\$1,000--		2 810 132	10 or less stockholders	farms--	30		
Average per farm	dollars--	165 088	Other —cooperative, estate or trust, institutional, etc.				
Average per acre	dollars--	849	farms--	80			
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>				acres--	29 942		
Estimated market value of all machinery and equipment	farms--	16 956	<b>Hired Farm Labor</b>				
\$1,000--		326 514	Hired workers by days worked:				
Average per farm	dollars--	19 257	150 days or more	farms--	1 941		
				workers--	3 322		
			Less than 150 days	farms--	4 885		
				workers--	14 152		
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>			<b>INJURIES AND DEATHS</b>				
Commercial fertilizer	farms--	9 604	Farm-related injuries:				
acres on which used--		321 705	Operator and family members	farms--	122		
				number--	137		
			Hired workers	farms--	72		
				number--	134		
<b>See footnotes at end of table.</b>			Farm-related deaths:				
			Operator and family members	farms--	7		
				number--	7		
			Hired workers	farms--	1		
				number--	(D)		

## C-8 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table C. Reliability Estimates of State Totals for All Farms: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>F FARMS BY SIZE</b>					
1 to 9 acres ----- farms --	737	1.9	LIVESTOCK—Con.		
acres--	2 856	2.1	Cattle and calves sold ----- farms --	11 583	1.0
10 to 49 acres ----- farms --	2 893	1.6	number--	254 233	.7
acres--	85 480	1.6	\$1,000--	117 196	.7
50 to 69 acres ----- farms --	1 580	1.5	Hogs and pigs inventory ----- farms --	841	1.4
acres--	92 439	1.5	number--	26 760	1.0
70 to 99 acres ----- farms --	2 147	1.4	Hogs and pigs sold ----- farms --	587	1.4
acres--	179 704	1.4	number--	50 642	1.2
100 to 139 acres ----- farms --	2 407	1.3	\$1,000--	3 939	1.3
acres--	280 566	1.3	Sheep and lambs of all ages inventory ----- farms --	1 188	1.2
140 to 179 acres ----- farms --	1 653	1.3	number--	57 091	1.2
acres--	260 500	1.3	Sheep and lambs sold ----- farms --	1 172	1.2
180 to 219 acres ----- farms --	1 271	1.3	number--	51 715	1.1
acres--	251 106	1.3	Horses and ponies inventory ----- farms --	3 109	1.3
220 to 259 acres ----- farms --	885	1.3	number--	12 607	1.4
acres--	210 394	1.3	Horses and ponies sold ----- farms --	481	1.8
260 to 499 acres ----- farms --	2 194	1.1	number--	1 267	2.2
acres--	767 680	1.1	POULTRY		
500 to 999 acres ----- farms --	948	1.2	Chickens 3 months old or older inventory ----- farms --	1 272	1.4
acres--	629 271	1.2	number--	1 510 412	1.4
1,000 to 1,999 acres ----- farms --	242	—	Hens and pullets of laying age ----- farms --	1 246	1.4
acres--	315 074	—	number--	1 119 500	1.8
2,000 acres or more ----- farms --	63	—	Broilers and other meat-type chickens sold ----- farms --	136	.8
acres--	192 118	—	number--	50 669 811	.1
<b>F FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>					
Cash grains (011) ----- farms --	186	2.1	CROPS HARVESTED		
acres--	68 531	1.3	Corn for grain or seed ----- farms --	1 517	1.1
Field crops, except cash grains (013) ----- farms --	2 915	1.4	acres--	44 564	.8
acres--	411 760	1.3	bushels--	4 668 501	.7
Vegetables and melons (016) ----- farms --	169	2.7	Corn for silage or green chop ----- farms --	1 027	1.0
acres--	17 827	3.9	acres--	27 674	.7
Fruits and tree nuts (017) ----- farms --	261	2.0	tons, green--	433 877	.6
acres--	48 996	1.7	Wheat for grain ----- farms --	307	1.5
Horticultural specialties (018) ----- farms --	206	2.2	acres--	9 058	.9
acres--	12 720	3.1	bushels--	438 877	.8
General farms, primarily crop (019) ----- farms --	981	1.7	Oats for grain ----- farms --	406	1.5
acres--	120 078	1.7	acres--	3 677	1.4
Livestock, except dairy, poultry, and animal specialties (021) ----- farms --	10 917	1.1	bushels--	201 339	1.4
acres--	2 267 237	.9	Tobacco ----- farms --	1 003	1.6
Dairy farms (024) ----- farms --	359	1.1	acres--	2 072	1.6
acres--	139 845	.6	pounds--	3 101 002	1.7
Poultry and eggs (025) ----- farms --	360	1.0	Irish potatoes ----- farms --	674	1.6
acres--	101 677	.5	acres--	884	3.2
Animal specialties (027) ----- farms --	508	2.0	cwt--	111 960	2.7
acres--	49 929	2.4	Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) ----- farms --	13 270	1.1
General farms, primarily livestock and animal specialties (029) ----- farms --	158	2.7	acres--	452 480	.9
acres--	28 588	2.6	tons, dry--	753 877	.8
<b>L LIVESTOCK</b>					
Cattle and calves inventory ----- farms --	12 431	1.1	Alfalfa hay ----- farms --	4 195	1.1
number--	430 708	.8	acres--	103 359	1.0
Beef cows ----- farms --	10 570	1.1	tons, dry--	213 111	.9
number--	197 886	.9	Vegetables harvested for sale (see text) ----- farms --	409	1.8
Milk cows ----- farms --	972	1.1	acres--	1 913	2.4
number--	23 366	.5	Land in orchards ----- farms --	558	1.7
			acres--	15 014	.8

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>F FARMS AND LAND IN FARMS</b>					
Farms ----- number	3 746	.9			
Land in farms ----- acres	1 476 368	.7			
Average size of farm ----- acres	394	1.1			
<b>F FARM PRODUCTION EXPENSES<sup>1</sup></b>					
Total farm production expenses ----- farms	3 562	1.8			
\$1,000-----	258 222	.8			
Average per farm ----- dollars	72 494	2.0			
Livestock and poultry purchased ----- farms	1 884	3.3			
\$1,000-----	47 943	2.0			
Feed for livestock and poultry ----- farms	2 831	2.3			
\$1,000-----	95 705	.7			
Commercially mixed formula feeds ----- farms	1 197	3.9			
\$1,000-----	83 769	.7			
Seeds, bulbs, plants, and trees ----- farms	1 762	3.2			
\$1,000-----	3 224	1.9			
Commercial fertilizer ----- farms	2 548	2.5			
\$1,000-----	7 896	2.4			
Agricultural chemicals ----- farms	2 142	2.9			
\$1,000-----	5 361	1.9			
Petroleum products ----- farms	3 524	1.8			
\$1,000-----	10 305	1.6			
Electricity ----- farms	2 574	2.5			
\$1,000-----	3 979	3.6			
Hired farm labor ----- farms	2 019	3.3			
\$1,000-----	25 251	1.3			
Contract labor ----- farms	515	7.1			
\$1,000-----	2 923	5.4			
Repair and maintenance ----- farms	3 309	2.0			
\$1,000-----	12 297	2.1			
Customwork, machine hire, and rental of machinery and equipment ----- farms	1 026	4.4			
\$1,000-----	1 727	6.8			
Interest expense ----- farms	1 761	3.6			
\$1,000-----	12 564	2.8			
Secured by real estate ----- farms	1 130	4.4			
\$1,000-----	9 106	3.5			
Not secured by real estate ----- farms	1 004	5.0			
\$1,000-----	3 458	3.6			
<b>Sales by commodity or commodity group:</b>					
Crops, including nursery and greenhouse crops ----- farms	1 579	1.0			
\$1,000-----	53 409	.5			
Grains ----- farms	522	1.2			
\$1,000-----	9 340	.7			
Corn for grain ----- farms	388	1.3			
\$1,000-----	6 025	.8			
Wheat ----- farms	176	1.6			
\$1,000-----	1 264	.7			
Soybeans ----- farms	102	1.7			
\$1,000-----	1 655	1.1			
Sorghum for grain ----- farms	2	—			
\$1,000-----	(D)	(D)			
Barley ----- farms	52	2.3			
\$1,000-----	302	1.4			
Oats ----- farms	44	3.4			
\$1,000-----	49	4.4			
Other grains ----- farms	16	5.0			
\$1,000-----	(D)	(D)			
Cotton and cottonseed ----- farms	—	—			
\$1,000-----	—	—			
Tobacco ----- farms	238	1.9			
\$1,000-----	3 110	2.2			
Hay, silage, and field seeds ----- farms	859	1.2			
\$1,000-----	6 394	1.8			
Vegetables, sweet corn, and melons ----- farms	130	2.3			
\$1,000-----	1 168	3.0			
Fruits, nuts, and berries ----- farms	126	2.0			
\$1,000-----	20 098	.5			
Nursery and greenhouse crops ----- farms	134	2.2			
\$1,000-----	12 578	.7			
Other crops ----- farms	83	3.0			
\$1,000-----	722	3.4			
Livestock, poultry, and their products ----- farms	3 404	.9			
\$1,000-----	271 417	.3			
Poultry and poultry products ----- farms	371	.9			
\$1,000-----	135 490	.1			
Dairy products ----- farms	383	1.0			
\$1,000-----	39 673	.4			
Cattle and calves ----- farms	3 186	.9			
\$1,000-----	89 918	.6			
Hogs and pigs ----- farms	270	1.6			
\$1,000-----	3 524	1.3			
Sheep, lambs, and wool ----- farms	412	1.4			
\$1,000-----	1 590	1.4			
Other livestock and livestock products (see text) ----- farms	159	2.2			
\$1,000-----	1 221	4.6			
Value of agricultural products sold directly to individuals for human consumption (see text) ----- farms	196	1.9			
\$1,000-----	1 326	2.0			
<b>NET CASH RETURN FROM AGRICULTURAL SALES FOR THE FARM UNIT (SEE TEXT)<sup>1</sup></b>					
All farms ----- number	3 562	1.8			
\$1,000-----	60 284	2.3			
Average per farm ----- dollars	16 924	2.9			
Farms with net gains <sup>2</sup> ----- number	2 749	2.4			
\$1,000-----	69 866	1.7			
Average net gain ----- dollars	25 415	3.0			
Farms with net losses ----- number	813	5.9			
\$1,000-----	9 581	6.1			
Average net loss ----- dollars	11 785	8.5			
<b>GOVERNMENT PAYMENTS AND OTHER FARM-RELATED INCOME</b>					
Government payments ----- farms	978	1.0			
\$1,000-----	2 748	.9			
Other farm-related income <sup>1</sup> ----- farms	922	5.5			
\$1,000-----	5 095	8.3			
Customwork and other agricultural services ----- farms	304	10.5			
\$1,000-----	2 590	13.4			
Gross cash rent or share payments ----- farms	201	12.9			
\$1,000-----	426	14.7			
Forest products and Christmas trees ----- farms	214	13.1			
\$1,000-----	1 644	11.5			
Other farm-related income sources ----- farms	353	8.2			
\$1,000-----	436	29.6			
<b>COMMODITY CREDIT CORPORATION LOANS</b>					
Total ----- farms	57	2.2			
\$1,000-----	1 128	.4			

See footnotes at end of table.

## C-10 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)	
<b>LAND IN FARMS ACCORDING TO USE</b>						
Total cropland	farms-- acres--	3 534 .9 603 761 .8	Individual or family (sole proprietorship)	farms-- acres--	3 208 .9 1 187 421 .8	
Harvested cropland	farms-- acres--	3 346 .9 301 735 .7	Partnership	farms-- acres--	368 181 163 1.6 1.2	
Cropland:			Corporation:			
Pasture or grazing only	farms-- acres--	2 141 274 946 1.0 1.0	Family held	farms-- acres--	127 83 841 1.5 .8	
Total woodland	farms-- acres--	2 926 522 471 .9 .7	More than 10 stockholders	farms-- acres--	5 122 5.4 1.5	
Pastureland and rangeland other than cropland and woodland pastured	farms-- acres--	1 506 308 705 1.0 .7	10 or less stockholders	farms-- acres--	2 14 5.2	
Land in house lots, ponds, roads, wasteland, etc.	farms-- acres--	2 301 41 431 1.0 1.3	Other than family held	farms-- acres--	16 5 145 4.5 3.0	
Irrigated land	farms-- acres--	125 1 608 2.4 1.8	More than 10 stockholders	farms-- acres--	2 14 5.2	
Harvested cropland irrigated	farms-- acres--	123 (D) 2.4 22.4	10 or less stockholders	farms-- acres--	27 18 798 3.7 2.7	
Pasture and other land irrigated	farms-- acres--	2 (D) 22.4	Other—cooperative, estate or trust, institutional, etc.	farms-- acres--	27 18 798 3.7 2.7	
Land under federal acreage reduction programs:			Hired farm labor			
Diverted under annual commodity programs	farms-- acres--	250 2 253 1.2 .7	Hired workers by days worked:			
Conservation Reserve or Wetlands Reserve Programs	farms-- acres--	96 2 247 2.7 6.2	150 days or more	farms--	937 937 8.4	
<b>VALUE OF LAND AND BUILDINGS<sup>1</sup></b>						
Estimated market value of land and buildings	farms-- \$1,000--	3 562 1 229 439 1.8 2.0	Less than 150 days	workers-- farms-- workers--	2 291 1 791 7 050 4.4 11.5 10.5	
Average per farm	dollars--	345 154 854 2.7 2.8	<b>INJURIES AND DEATHS</b>			
Average per acre	dollars--		Farm-related injuries:			
<b>VALUE OF MACHINERY AND EQUIPMENT<sup>1</sup></b>						
Estimated market value of all machinery and equipment	farms-- \$1,000--	3 562 151 793 1.8 2.0	Operator and family members	farms-- number--	53 56 2.2 2.1	
Average per farm	dollars--	42 615 2.7	Hired workers	farms-- number--	64 126 1.8 1.0	
<b>AGRICULTURAL CHEMICALS<sup>1</sup></b>						
Commercial fertilizer	farms-- acres on which used--	2 532 201 544 2.5 2.3	Farm-related deaths:			
All operators	farms-- acres--	3 746 1 476 368 .9 .7	Operator and family members	farms-- number--	4 (D) 9.6	
Full owners	farms-- acres--	2 002 576 277 1.0 .9	Hired workers	farms-- number--	1 (D) — (D)	
Part owners	farms-- acres--	1 532 824 835 1.0 .7	<b>FARMS BY SIZE</b>			
Tenants	farms-- acres--	212 75 256 1.9 1.6	1 to 9 acres	farms--	146 231 2.4 2.0	
<b>TENURE OF OPERATOR</b>						
Land rented or leased from others	farms-- acres-- landlords--	1 748 478 652 4 102 1.9 .9	10 to 49 acres	farms--	115 214 2.8 2.1	
Rented or leased land in farms	farms-- acres--	1 744 476 307 .9 .7	50 to 69 acres	farms--	342 299 1.7 1.8	
Land rented or leased to others	farms-- acres--	244 37 650 2.0 3.0	70 to 99 acres	farms--	285 262 1.8 1.2	
<b>OWNED AND RENTED LAND</b>						
Land owned	farms-- acres--	3 536 1 035 366 .9 .8	100 to 139 acres	farms--	650 500 1.2 —	
Owned land in farms	farms-- acres--	3 534 1 000 061 .9 .8	140 to 179 acres	farms--	213 213 — 60	
<b>OPERATOR CHARACTERISTICS</b>						
Land rented or leased to others	farms-- acres--	1 748 478 652 4 102 1.9 .9	180 to 219 acres	farms--	146 231 2.4 2.0	
Rented or leased land in farms	farms-- acres--	1 744 476 307 .9 .7	220 to 259 acres	farms--	115 214 2.8 2.1	
Land rented or leased to others	farms-- acres--	244 37 650 2.0 3.0	260 to 499 acres	farms--	929 650 1.2 1.0	
<b>FARMS BY STANDARD INDUSTRIAL CLASSIFICATION</b>						
Operators by place of residence:			500 to 999 acres	farms--	650 500 1.2 —	
On farm operated		2 933 594 219 .9 1.4 1.8	1,000 to 1,999 acres	farms--	213 213 — 60	
Not on farm operated			2,000 acres or more	farms--	146 231 2.4 2.0	
Not reported			<b>LIVESTOCK</b>			
Operators by principal occupation:			Cattle and calves inventory	farms-- number--	3 070 262 195 .9 .7	
Farming		2 298 1 448 .9 1.2	Beef cows	farms-- number--	2 305 104 084 1.0 .9	
Other			Milk cows	farms-- number--	482 22 492 1.0 .5	
Operators by days worked off farm:			Cattle and calves sold	farms-- number--	3 186 179 970 .9 .7	
Any		1 845 1 176 1.1 1.2	Hogs and pigs inventory	farms-- number--	\$1,000-- 89 918 1.6 .6	
200 days or more			Hogs and pigs sold	farms-- number--	288 22 509 1.1 —	
Operators by sex:			Sheep and lambs of all ages inventory	farms-- number--	45 102 3 524 1.2 1.3	
Male		3 508 238 .9 2.0	Sheep and lambs sold	farms-- number--	392 30 505 1.4 1.5	
Female			Horses and ponies inventory	farms-- number--	411 30 884 1.4 1.3	
Average age of operator	years--	54.9 1.3	Horses and ponies sold	farms-- number--	92 407 2.9 4.1	

See footnotes at end of table.

**Table D. Reliability Estimates of State Totals for Farms With Sales of \$10,000 or More:  
1992—Con.**

[For meaning of abbreviations and symbols, see introductory text]

Item	Total	Relative standard error of estimate (percent)	Item	Total	Relative standard error of estimate (percent)
<b>POULTRY</b>					
Chickens 3 months old or older inventory	farms--	265	Oats for grain	farms--	212
	number--	1 470 584		acres--	2 498
Hens and pullets of laying age	farms--	253		bushels--	136 961
	number--	1 085 849	Tobacco	farms--	240
Broilers and other meat-type chickens sold	farms--	128		acres--	10 021
	number--	50 669 059		pounds--	1 791 175
<b>CROPS HARVESTED</b>					
Corn for grain or seed	farms--	785	Irish potatoes	farms--	133
	acres--	.8		acres--	561
	bushels--	4 289 049		cwt--	74 515
Corn for silage or green chop	farms--	784	Hay—alfalfa, other tame, small grain, wild, grass	farms--	3 055
	acres--	25 510	silage, green chop, etc. (see text)	acres--	208 125
	tons, green--	407 287		tons, dry--	419 409
Wheat for grain	farms--	195	Alfalfa hay	farms--	1 323
	acres--	7 976		acres--	53 119
	bushels--	396 679		tons, dry--	133 325
		.8	Vegetables harvested for sale (see text)	farms--	130
				acres--	1 328
			Land in orchards	farms--	144
				acres--	13 227
					.8

<sup>1</sup>Data are based on a sample of farms.

<sup>2</sup>Farms with total production expenses equal to market value of agricultural products sold are included as farms with gains of less than \$1,000.

**Table E. Reliability Estimates of Percent Change in State Totals: 1987 to 1992**

[For meaning of abbreviations and symbols, see introductory text]

Item	All farms		Farms with sales of \$10,000 or more	
	Percent change from 1987 to 1992	Standard error of estimate	Percent change from 1987 to 1992	Standard error of estimate
Farms-----	-1.3	1.2	15.3	1.2
Land in farms -----	-3.1	.9	5.4	.9
Average size of farm -----	-2.0	1.5	-8.6	1.3
Estimated market value of land and buildings <sup>1</sup> :				
Average per farm -----	26.2	3.2	12.8	3.6
Average per acre -----	24.5	3.5	18.6	4.0
Estimated market value of all machinery and equipment <sup>1</sup> :				
Average per farm -----	10.2	2.7	-2.6	3.4
Farms by size:				
1 to 9 acres -----	14.6	2.6	33.9	4.1
10 to 49 acres -----	7.6	2.0	69.9	4.9
50 to 179 acres -----	-3.6	1.4	33.6	2.2
180 to 499 acres -----	-3.7	1.2	7.9	1.5
500 to 999 acres -----	-5.6	1.4	-3	1.6
1,000 to 1,999 acres -----	-2.0	-	2.4	-
2,000 acres or more -----	14.5	-	17.6	-
Total cropland -----	-2.2	1.2	14.0	1.2
acres-----	.6	1.0	8.1	1.0
Harvested cropland -----	-3.5	1.2	12.1	1.2
acres-----	.4	.9	7.7	1.0
Irrigated land -----	22.4	3.0	23.8	3.5
acres-----	-11.6	3.2	-8.8	3.7
Market value of agricultural products sold -----	\$1,000 --	.6	39.8	.5
Average per farm -----	dollars --	36.3	21.2	1.4
Crops, including nursery and greenhouse crops -----	\$1,000 --	.8	27.8	.8
Livestock, poultry, and their products -----	\$1,000 --	.6	42.4	.6
Farms by value of sales:				
Less than \$2,500 -----	-13.2	1.1	(X)	(X)
\$2,500 to \$4,999 -----	1.0	1.5	(X)	(X)
\$5,000 to \$9,999 -----	11.8	1.5	(X)	(X)
\$10,000 to \$24,999 -----	12.6	1.6	12.6	1.6
\$25,000 to \$49,999 -----	18.0	2.2	18.0	2.2
\$50,000 to \$99,999 -----	8.3	2.3	8.3	2.3
\$100,000 to \$249,999 -----	16.7	.3	16.7	.3
\$250,000 to \$499,999 -----	39.1	-	39.1	-
\$500,000 or more -----	52.8	-	52.8	-
Total farm production expenses <sup>1</sup> -----	\$1,000--	33.6	39.2	2.6
Average per farm -----	dollars --	35.3	22.3	2.6
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup> -----	farms--	-1.2	1.2	2.2
\$1,000--		29.1	6.0	4.1
Average per farm -----	dollars --	30.8	6.3	4.2
Operators by principal occupation:				
Farming -----	-4.4	1.1	8.0	1.2
Other -----	-1.8	1.4	29.1	1.9
Operators by days worked off farm:				
Any -----	-4.8	4.9	18.4	6.4
200 days or more -----	-4.0	4.9	23.8	6.4
Livestock and poultry:				
Cattle and calves inventory -----	farms--	-3.6	1.2	12.7
number--	5.5	.9	8.9	1.0
Beef cows -----	farms--	-.2	1.2	13.5
number--	8.7	1.1	15.3	1.3
Milk cows -----	farms--	-38.3	.9	-21.5
number--	-13.5	.7	-10.3	.8
Cattle and calves sold -----	farms--	-4.0	1.1	11.6
number--	2.0	.9	9.6	.9
Hogs and pigs inventory -----	farms--	-31.4	1.1	-26.7
number--	-13.0	1.4	-6.4	1.7
Hogs and pigs sold -----	farms--	-32.4	1.2	-26.8
number--	-14.4	1.4	-9.0	1.6
Sheep and lambs inventory -----	farms--	-22.7	1.1	-16.6
number--	-23.9	1.2	-25.0	1.5
Chickens 3 months old or older inventory -----	farms--	-37.3	1.0	-10.2
number--	118.6	4.0	126.2	4.2
Broilers and other meat-type chickens sold -----	farms--	37.4	2.0	58.0
number--	73.4	.2	73.5	.2
Selected crops harvested:				
Corn for grain or seed -----	farms--	-27.7	.9	-6.2
acres--	-9.0	.9	-.8	1.4
bushels--	43.3	1.4	59.1	1.6
Corn for silage or green chop -----	farms--	-30.5	.9	-24.6
acres--	-24.9	.7	-22.4	1.0
tons, green--	-.4	.9	2.5	.7
Wheat for grain -----	farms--	-18.4	1.7	-11.8
acres--	23.4	2.0	32.9	2.3
bushels--	38.7	2.1	46.2	2.3
Oats for grain -----	farms--	-21.3	1.5	-11.3
acres--	-20.2	1.6	-20.5	1.8
bushels--	-11.4	1.8	-16.7	2.0
Tobacco -----	farms--	-8.4	1.7	60.0
acres--	20.7	2.7	79.3	4.8
pounds--	43.7	3.6	104.4	9.8
Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text) -----	farms--	-4.2	1.2	12.2
acres--	3.9	1.1	16.6	1.2
tons, dry--	11.9	1.1	23.2	1.3
Land in orchards -----	farms--	-13.6	1.8	-18.2
acres--	-23.1	.9	-25.1	.9

<sup>1</sup>Data are based on a sample of farms.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-13

**Table F. Reliability Estimates for the State and County Totals: 1992**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farms		Land in farms		Average size of farm		Average market value of land and buildings per farm <sup>1</sup>		Estimated market value of all machinery and equipment <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Total (acres)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>West Virginia -</b>	<b>17 020</b>	<b>1.1</b>	<b>3 267 188</b>	<b>.8</b>	<b>192</b>	<b>1.4</b>	<b>165 088</b>	<b>2.1</b>	<b>326 514</b>	<b>1.5</b>
Barbour -----	430	.9	76 080	1.1	177	1.4	109 937	8.6	5 769	7.6
Berkeley -----	473	1.0	73 430	1.1	155	1.5	293 582	5.8	11 580	4.8
Boone -----	36	2.4	2 531	5.2	70	5.7	90 370	10.5	423	6.7
Braxton -----	292	.9	73 407	1.3	251	1.6	91 887	6.3	4 578	10.1
Brooke -----	80	1.2	12 175	2.2	152	2.5	89 151	5.1	1 310	3.7
Cabell -----	327	1.6	35 587	2.2	109	2.7	87 350	8.4	3 020	10.5
Calhoun -----	162	1.5	34 919	2.1	216	2.6	89 889	9.1	2 369	7.5
Clay -----	91	1.2	14 868	3.0	163	3.2	142 220	7.1	1 672	4.1
Doddridge -----	261	.8	59 184	1.1	227	1.3	122 765	9.9	4 191	17.3
Fayette -----	170	1.8	20 455	2.6	120	3.1	98 996	11.9	2 535	6.8
Gilmer -----	220	1.0	52 748	1.6	240	1.8	111 731	9.6	3 815	13.5
Grant -----	355	.9	106 325	1.0	300	1.3	246 844	5.1	7 803	10.6
Greenbrier -----	705	1.1	179 736	1.0	255	1.5	206 451	6.5	17 857	3.8
Hampshire -----	547	1.2	135 577	1.3	248	1.7	232 039	7.1	12 150	9.7
Hancock -----	75	1.2	7 710	3.1	103	3.3	132 626	5.4	1 973	4.3
Hardy -----	486	1.0	141 742	.8	292	1.3	363 121	12.4	20 145	5.3
Harrison -----	537	1.1	88 571	1.2	165	1.7	137 886	13.2	9 572	9.5
Jackson -----	630	1.1	101 214	1.4	161	1.8	124 982	9.7	8 690	9.7
Jefferson -----	334	.8	74 268	.9	222	1.2	608 207	5.2	15 319	6.5
Kanawha -----	158	1.6	19 956	2.3	126	2.8	123 661	5.9	2 269	4.6
Lewis -----	336	.8	81 096	1.1	241	1.4	139 723	8.5	5 484	8.6
Lincoln -----	267	1.6	30 015	2.5	112	3.0	108 263	16.5	2 972	7.0
Logan -----	19	2.1	3 113	3.9	164	4.4	115 482	10.6	369	5.0
McDowell -----	9	2.0	1 088	3.6	121	4.1	119 575	10.8	147	8.0
Marion -----	331	.9	40 837	1.3	123	1.6	115 363	16.0	4 300	12.3
Marshall -----	413	1.1	64 332	1.3	156	1.7	98 911	7.2	7 133	9.2
Mason -----	709	1.3	117 168	1.2	165	1.8	128 181	10.3	13 906	6.3
Mercer -----	495	2.7	56 555	2.4	114	3.6	105 762	10.9	7 131	8.7
Mineral -----	316	1.0	74 760	1.4	237	1.7	185 525	8.9	5 180	8.4
Mingo -----	9	2.9	258	11.1	29	11.5	47 556	20.4	72	11.2
Monongalia -----	404	1.1	54 622	1.8	135	2.1	138 671	11.1	8 514	9.6
Monroe -----	606	1.2	148 842	1.1	246	1.6	191 100	6.9	16 134	7.4
Morgan -----	134	.8	21 871	2.2	163	2.3	220 879	7.9	2 659	6.9
Nicholas -----	282	1.2	33 085	1.7	117	2.1	129 806	15.2	4 845	9.5
Ohio -----	127	.7	21 164	1.4	167	1.6	128 182	6.2	2 820	7.5
Pendleton -----	562	.9	178 160	1.0	317	1.3	228 558	5.3	14 338	4.4
Pleasants -----	111	2.2	15 650	4.1	141	4.6	110 878	8.0	1 903	4.7
Pocahontas -----	355	1.2	115 487	1.3	325	1.8	244 453	12.4	9 757	11.2
Preston -----	799	.9	138 688	1.1	174	1.4	118 179	6.5	15 273	4.7
Putnam -----	443	1.4	55 827	1.5	126	2.1	112 254	6.7	6 173	5.9
Raleigh -----	237	1.3	32 633	1.5	138	2.0	146 794	22.7	3 454	8.5
Randolph -----	362	.9	104 194	1.0	288	1.4	236 618	16.9	6 392	7.2
Ritchie -----	308	1.1	70 960	1.3	230	1.7	118 281	11.7	4 717	8.4
Roane -----	437	1.1	82 154	1.4	188	1.8	103 122	9.6	6 515	10.1
Summers -----	325	1.1	57 717	1.6	178	2.0	158 726	12.1	4 825	7.2
Taylor -----	256	.8	41 830	1.2	163	1.4	125 165	10.2	3 737	7.3
Tucker -----	169	.8	32 093	1.5	190	1.7	184 451	6.6	2 942	8.6
Tyler -----	238	.9	47 366	1.3	199	1.6	94 239	11.4	3 623	12.2
Upshur -----	407	.9	58 678	1.3	144	1.6	171 818	10.4	6 364	16.3
Wayne -----	172	1.5	28 622	2.4	166	2.9	111 296	6.1	2 306	5.3
Webster -----	93	1.9	9 335	3.5	100	4.0	86 774	13.8	1 278	8.2
Wetzel -----	199	1.2	37 130	1.8	187	2.2	93 315	15.7	2 812	10.9
Wirt -----	195	1.1	35 836	1.7	184	2.1	121 554	14.1	2 612	7.9
Wood -----	468	.9	59 846	1.4	128	1.7	137 293	7.2	7 783	9.3
Wyoming -----	58	1.8	5 693	3.9	98	4.3	98 659	7.0	1 003	6.4
Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>			
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Number	Total farm production expenses		
								Farms		
								Value		
<b>West Virginia -</b>	<b>19 257</b>	<b>1.9</b>	<b>364 203</b>	<b>.3</b>	<b>21 399</b>	<b>1.1</b>	<b>17 022</b>	<b>1.1</b>	<b>308 703</b>	<b>.7</b>
Barbour -----	13 417	7.7	3 692	1.4	8 586	1.7	430	1.2	2 859	7.5
Berkeley -----	24 481	4.9	21 447	.4	45 343	1.1	473	1.2	18 679	2.0
Boone -----	11 744	9.1	79	14.9	2 187	15.0	36	6.2	81	12.1
Braxton -----	15 625	10.2	1 939	2.0	6 639	2.2	293	1.3	1 710	11.9
Brooke -----	16 377	5.0	814	3.8	10 172	4.0	80	3.4	634	3.3
Cabell -----	9 649	11.0	2 259	3.4	6 907	3.7	327	1.7	1 625	16.8
Calhoun -----	14 536	7.8	587	2.8	3 623	3.2	163	2.3	672	7.1
Clay -----	18 376	5.2	492	2.9	5 403	3.1	91	3.3	450	3.7
Doddridge -----	16 059	17.3	1 656	1.6	6 345	1.8	261	1.1	1 595	10.9
Fayette -----	14 912	7.3	1 251	1.7	7 356	2.5	170	2.6	912	5.6
Gilmer -----	17 343	13.6	1 860	2.2	8 453	2.4	220	1.4	1 664	19.0
Grant -----	22 043	10.6	22 774	.2	64 152	.9	354	1.0	20 250	1.3
Greenbrier -----	25 293	4.0	34 023	.4	48 259	1.2	706	1.2	22 245	1.9
Hampshire -----	22 171	9.7	10 262	1.0	18 760	1.5	548	1.3	10 017	3.5

See footnotes at end of table.

## C-14 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Average market value of all machinery and equipment per farm <sup>1</sup>		Market value of agricultural products sold		Average market value of agricultural products sold per farm		Farm production expenses <sup>1</sup>					
	Value (dollars)	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Value (dollars)	Relative standard error of estimate (percent)	Total farm production expenses					
							Farms		Value			
							Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)		
Hancock -----	26 313	5.7	879	3.6	11 716	3.8	75	3.7	896	3.3		
Hardy -----	41 451	5.4	67 556	.2	139 004	1.0	486	1.2	59 864	1.4		
Harrison -----	17 858	9.6	4 157	1.5	7 742	1.8	536	1.3	4 190	9.4		
Jackson -----	13 772	9.8	4 144	1.6	6 578	2.0	631	1.3	3 833	8.0		
Jefferson -----	45 865	6.6	20 737	.4	62 088	.9	334	.9	19 722	1.9		
Kanawha -----	14 363	5.2	1 866	.8	11 810	1.8	158	2.4	1 148	4.4		
Lewis -----	16 322	8.7	3 707	1.4	11 034	1.6	336	1.1	3 407	9.5		
Lincoln -----	11 090	7.3	1 618	1.9	6 061	2.5	268	2.0	1 536	5.5		
Logan -----	19 432	8.7	164	3.0	8 621	3.7	19	7.1	176	2.1		
McDowell -----	16 280	11.8	151	26.3	16 830	26.4	9	8.7	131	18.1		
Marion -----	13 029	12.3	1 478	1.6	4 464	1.8	330	1.2	1 232	9.3		
Marshall -----	17 314	9.3	3 622	1.8	8 771	2.1	412	1.3	2 785	7.1		
Mason -----	19 614	6.5	14 284	.7	20 146	1.4	709	1.3	10 045	3.6		
Mercer -----	14 672	9.2	2 807	2.3	5 670	3.6	496	2.7	2 144	11.2		
Mineral -----	16 445	8.5	3 960	1.8	12 532	2.0	315	1.3	3 768	12.7		
Mingo -----	7 944	14.9	73	17.4	8 159	17.7	9	9.8	41	14.7		
Monongalia -----	22 114	10.1	2 556	1.9	6 328	2.2	403	1.3	2 650	6.4		
Monroe -----	26 580	7.5	16 104	.9	26 574	1.5	607	1.3	12 759	4.7		
Morgan -----	19 841	7.2	1 599	1.5	11 933	1.7	134	2.0	1 389	4.7		
Nicholas -----	17 120	9.6	2 303	1.9	8 166	2.3	283	1.4	1 562	11.0		
Ohio -----	22 205	7.9	2 016	1.4	15 874	1.6	127	2.4	1 632	4.5		
Pendleton -----	25 512	4.5	50 691	.2	90 198	.9	562	1.0	44 516	1.2		
Pleasants -----	17 144	6.2	843	5.2	7 592	5.7	111	4.1	857	6.7		
Pocahontas -----	27 484	11.2	5 462	1.3	15 386	1.8	355	1.4	4 136	7.9		
Preston -----	19 139	4.8	10 061	.9	12 592	1.3	798	1.0	8 748	5.4		
Putnam -----	14 062	6.2	3 096	1.2	6 989	1.9	443	1.7	2 587	5.9		
Raleigh -----	14 574	8.6	1 704	1.3	7 190	1.9	237	1.7	1 638	13.6		
Randolph -----	17 657	7.3	5 592	1.0	15 449	1.3	362	1.2	4 506	4.7		
Ritchie -----	15 315	8.5	3 786	1.0	12 292	1.5	308	1.4	3 032	6.1		
Roane -----	14 909	10.2	2 437	1.9	5 577	2.2	437	1.2	2 822	18.1		
Summers -----	15 172	7.6	3 242	1.9	9 975	2.2	326	1.2	2 291	7.4		
Taylor -----	14 599	7.4	4 314	1.0	16 853	1.3	256	1.3	2 884	4.2		
Tucker -----	17 410	8.8	1 287	2.4	7 616	2.5	169	2.0	983	8.6		
Tyler -----	15 223	12.2	1 662	2.1	6 981	2.3	238	1.3	1 233	10.4		
Upshur -----	15 636	16.3	2 835	1.7	6 965	2.0	407	1.2	2 276	7.8		
Wayne -----	13 408	5.8	1 079	2.8	6 275	3.2	172	2.2	935	4.8		
Webster -----	13 741	8.8	244	5.0	2 629	5.4	93	3.2	296	9.0		
Wetzel -----	15 039	11.6	829	4.0	4 165	4.2	199	1.7	696	10.3		
Wirt -----	13 394	8.0	3 324	1.6	17 044	2.0	195	1.4	3 190	10.4		
Wood -----	16 666	9.3	2 533	1.7	5 413	2.0	467	1.1	2 568	9.6		
Wyoming -----	17 290	7.9	266	10.8	4 579	11.0	58	4.6	203	7.5		
Farm production expenses <sup>1</sup> —Con.												
Geographic area	Livestock and poultry purchased			Feed for livestock and poultry			Seeds, bulbs, plants, and trees					
	Farms		Value		Farms		Value		Farms			
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)		
<b>West Virginia</b> -	<b>5 457</b>	<b>2.6</b>	<b>54 571</b>	<b>1.9</b>	<b>10 551</b>	<b>1.6</b>	<b>101 386</b>	<b>.6</b>	<b>4 496</b>	<b>2.7</b>	<b>3 733</b>	<b>1.8</b>
Barbour -----	175	13.3	481	13.8	286	7.2	478	12.7	63	26.1	33	11.2
Berkeley -----	180	11.6	930	3.6	280	5.4	2 119	3.1	166	10.1	229	4.2
Boone -----	4	21.5	15	34.5	14	9.1	(D)	(D)	20	8.3	1	14.9
Braxton -----	96	20.8	436	32.3	190	9.8	238	18.5	45	28.6	11	22.9
Brooke -----	15	6.3	27	8.9	41	4.6	132	3.9	21	5.7	14	5.7
Cabell -----	40	37.9	117	18.6	137	16.3	88	23.8	189	11.2	37	27.1
Calhoun -----	48	11.7	75	10.1	90	7.8	83	12.7	25	18.4	6	20.8
Clay -----	26	5.6	87	4.5	57	4.0	64	5.5	11	8.8	4	18.5
Doddridge -----	134	13.4	381	10.6	182	11.2	237	27.9	6	98.0	1	98.0
Fayette -----	39	16.7	217	9.1	86	9.2	89	9.4	27	21.6	14	16.8
Gilmer -----	88	16.6	432	47.3	143	10.0	287	11.7	34	25.8	6	27.8
Grant -----	150	15.2	3 112	3.4	270	8.0	12 141	1.3	105	21.2	40	15.3
Greenbrier -----	248	10.1	7 667	4.0	492	5.2	3 431	2.7	193	13.2	146	8.5
Hampshire -----	168	13.2	1 090	10.4	346	7.1	2 054	4.9	213	11.9	218	6.3
Hancock -----	15	8.4	19	10.1	43	5.1	34	7.1	36	4.9	96	4.1
Hardy -----	267	10.2	13 830	2.5	339	8.3	33 186	1.1	175	14.4	187	6.3
Harrison -----	165	13.5	679	23.3	356	7.3	742	14.8	80	23.1	34	33.9
Jackson -----	251	11.2	671	19.7	396	6.3	485	15.3	148	14.3	40	19.9
Jefferson -----	128	14.7	1 014	8.6	224	8.5	3 088	3.2	180	12.0	502	3.4
Knawha -----	32	14.0	74	22.0	104	5.6	146	6.8	38	13.6	101	1.6
Lewis -----	152	13.3	838	17.6	199	8.8	505	13.7	45	28.3	21	30.8
Lincoln -----	44	36.4	79	46.8	71	26.2	57	39.3	156	10.6	30	24.1
Logan -----	5	14.2	(D)	(D)	11	9.9	37	1.6	14	7.9	2	8.0
McDowell -----	2	18.9	(D)	(D)	1	37.8	(D)	(D)	3	17.9	(Z)	25.2

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-15

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Livestock and poultry purchased				Feed for livestock and poultry				Seeds, bulbs, plants, and trees			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Marion -----	82	24.0	125	26.3	209	10.4	122	16.2	6	.4	6	.4
Marshall -----	125	17.9	275	20.5	273	9.1	768	10.8	89	20.9	44	10.2
Mason -----	155	17.2	741	34.6	374	8.6	1 931	2.5	371	8.2	330	8.4
Mercer -----	106	18.8	535	29.3	280	9.6	180	16.0	90	17.8	43	13.4
Mineral -----	96	21.3	469	19.9	181	13.4	1 294	19.1	82	21.4	34	17.8
Mingo -----	3	18.6	4	28.5	8	9.8	17	14.8	3	17.2	(D)	(D)
Monongalia -----	122	20.2	323	23.4	266	9.3	457	10.4	42	22.9	30	32.3
Monroe -----	248	10.6	3 224	10.1	409	6.1	1 996	9.6	258	10.7	387	10.1
Morgan -----	26	20.8	51	35.6	56	11.0	116	12.5	78	7.8	40	7.5
Nicholas -----	94	18.3	337	33.9	132	15.1	200	8.7	31	36.2	(D)	(D)
Ohio -----	42	13.4	58	14.4	102	5.1	393	4.7	48	10.2	35	10.9
Pendleton -----	279	9.9	7 841	4.8	442	5.1	28 412	.5	91	18.0	80	5.7
Pleasants -----	43	6.1	190	6.9	60	5.4	70	5.7	21	8.6	18	15.6
Pocahontas -----	120	19.5	1 082	9.6	228	10.5	494	21.8	78	21.0	40	18.8
Preston -----	208	13.2	1 035	21.2	518	6.0	1 435	6.2	271	9.9	214	6.1
Putnam -----	101	20.5	185	25.9	208	10.7	163	15.9	195	12.1	83	10.7
Raleigh -----	52	29.4	318	45.4	122	16.4	154	18.2	33	34.8	17	7.7
Randolph -----	169	10.0	1 211	10.2	228	8.3	577	9.6	56	26.6	31	11.4
Ritchie -----	88	22.2	1 259	5.1	209	9.9	338	7.8	35	36.4	11	25.4
Roane -----	152	16.0	829	38.4	268	9.4	235	27.3	114	18.4	20	26.5
Summers -----	129	16.6	447	23.0	222	8.2	320	11.0	63	24.0	76	13.0
Taylor -----	60	22.2	334	28.0	190	7.1	304	7.6	21	40.5	(D)	(D)
Tucker -----	43	13.2	155	30.1	93	7.7	134	17.8	36	13.9	8	17.4
Tyler -----	63	22.8	135	41.1	154	10.6	210	16.9	64	21.2	16	31.3
Upshur -----	112	19.2	388	17.0	258	8.4	315	11.4	44	30.7	19	47.8
Wayne -----	40	16.3	72	14.4	99	6.3	137	9.4	60	9.5	26	11.0
Webster -----	14	32.8	25	46.0	47	16.4	27	17.6	24	27.8	4	36.9
Wetzel -----	53	26.9	65	35.6	145	8.2	101	12.9	53	28.4	7	29.8
Wirt -----	49	30.7	278	18.2	112	14.5	378	20.9	24	33.3	(D)	(D)
Wood -----	107	18.6	250	19.6	270	8.2	352	16.5	113	16.5	52	9.4
Wyoming -----	4	19.0	5	24.3	30	6.4	22	6.1	9	10.3	13	15.6
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
West Virginia -	9 717	1.8	11 670	2.8	7 996	2.0	6 428	1.8	16 045	1.2	15 877	1.4
Barbour -----	233	9.6	140	13.1	132	14.1	19	22.6	409	2.3	280	7.0
Berkeley -----	267	8.0	493	5.7	353	6.0	1 830	3.4	467	1.6	792	3.3
Boone -----	23	7.3	(D)	(D)	24	7.7	(D)	(D)	33	6.5	8	12.0
Braxton -----	166	10.9	100	24.1	119	12.8	51	66.7	265	5.0	184	11.1
Brooke -----	32	4.8	26	5.1	41	4.5	19	5.3	79	3.4	50	4.0
Cabell -----	253	6.0	355	62.7	214	9.8	41	21.2	318	3.1	133	12.3
Calhoun -----	72	9.1	52	10.2	48	11.1	13	18.0	145	3.9	76	8.7
Clay -----	57	4.0	37	5.0	31	5.7	7	8.6	84	3.4	37	5.1
Doddridge -----	119	16.9	63	21.1	111	14.7	11	26.3	241	5.7	138	17.4
Fayette -----	111	7.2	63	8.4	96	8.2	11	9.0	162	3.3	72	9.2
Gilmer -----	76	18.0	57	18.3	99	15.3	29	38.7	195	4.8	162	15.9
Grant -----	217	10.3	208	11.0	188	11.7	54	18.8	346	2.2	649	4.3
Greenbrier -----	383	8.1	767	6.1	411	6.7	186	12.6	686	1.7	968	5.2
Hampshire -----	419	5.8	578	9.8	258	9.7	376	12.1	547	1.3	746	10.0
Hancock -----	40	4.7	23	6.1	52	4.3	75	1.2	67	3.9	89	4.5
Hardy -----	208	12.7	522	6.3	309	8.8	220	10.6	463	2.5	1 447	2.2
Harrison -----	269	10.7	227	18.3	172	14.5	44	18.3	469	3.0	364	11.7
Jackson -----	371	7.0	242	14.6	255	9.3	51	18.2	609	2.0	382	10.7
Jefferson -----	238	8.8	1 343	4.3	236	8.3	1 280	2.3	317	3.5	935	4.5
Kanawha -----	56	10.9	29	13.2	58	9.9	13	9.8	146	3.1	105	6.4
Lewis -----	186	11.4	175	21.4	171	9.0	42	10.4	330	2.0	336	12.4
Lincoln -----	192	9.7	110	6.9	183	10.6	53	17.5	268	2.0	113	9.4
Logan -----	10	9.6	4	7.1	15	8.2	4	6.6	17	6.8	14	2.3
McDowell -----	4	10.1	7	7.0	6	11.3	20	12.9	9	8.7	12	13.7
Marion -----	70	24.9	58	23.5	90	21.5	29	25.2	322	2.5	166	16.9
Marshall -----	171	14.4	91	12.7	136	15.7	43	16.6	375	4.3	234	8.8
Mason -----	502	5.5	861	9.7	411	8.1	217	6.3	674	2.5	870	4.7
Mercer -----	293	10.0	169	11.8	173	13.7	38	19.2	425	5.7	168	10.5
Mineral -----	158	12.9	154	11.1	111	19.0	30	9.1	287	5.4	229	8.4
Mingo -----	1	38.9	(D)	(D)	1	33.7	(D)	(D)	9	9.8	1	12.5
Monongalia -----	173	14.1	149	17.5	125	18.2	49	21.9	383	2.8	228	9.7
Monroe -----	457	5.6	950	7.3	275	10.7	424	3.2	581	2.3	698	8.5
Morgan -----	77	7.2	87	9.7	70	9.1	82	6.7	127	2.8	141	8.8
Nicholas -----	164	9.3	128	13.3	148	10.6	26	28.2	277	2.4	156	23.8
Ohio -----	61	9.5	64	8.6	58	10.4	13	17.6	124	3.0	139	7.7
Pendleton -----	285	9.4	368	10.9	380	6.0	148	8.7	539	2.6	1 043	3.7
Pleasants -----	55	5.5	52	8.6	55	5.4	30	15.7	105	4.2	62	5.5
Pocahontas -----	234	10.9	300	11.3	189	12.7	82	14.9	336	3.0	277	10.7
Preston -----	538	5.5	750	11.3	300	10.5	159	19.2	754	2.1	664	6.6

See footnotes at end of table.

## C-16 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Commercial fertilizer				Agricultural chemicals				Petroleum products			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Putnam -----	318	6.4	212	9.2	273	7.9	87	9.0	417	3.1	280	11.1
Raleigh -----	147	12.0	114	15.1	114	13.5	32	17.4	218	4.6	154	21.2
Randolph -----	183	9.6	221	9.6	172	12.5	118	16.7	336	2.9	297	5.5
Ritchie -----	192	10.5	169	29.4	77	22.0	15	20.8	284	4.5	191	12.5
Roane -----	241	10.9	145	15.6	250	10.5	111	21.9	429	2.2	212	11.4
Summers -----	209	8.9	157	12.4	119	15.8	57	18.2	272	5.6	143	17.8
Taylor -----	114	14.1	90	15.7	53	25.0	13	22.7	237	4.2	314	3.9
Tucker -----	101	6.9	75	11.7	60	11.4	11	21.2	162	2.6	101	10.0
Tyler -----	144	10.8	99	13.6	62	23.2	10	18.3	217	4.2	122	12.7
Upshur -----	176	13.2	87	23.3	187	10.1	35	32.9	390	2.5	244	11.3
Wayne -----	104	6.1	79	7.0	103	6.7	25	9.5	158	3.7	99	6.9
Webster -----	54	12.7	47	18.0	49	12.9	3	28.7	85	5.7	33	9.7
Wetzel -----	73	20.9	29	20.9	61	25.8	10	29.5	192	3.6	85	13.7
Wirt -----	105	16.0	159	36.2	67	25.3	(D)	(D)	189	2.9	164	20.3
Wood -----	286	7.4	169	9.9	220	9.6	63	14.0	420	3.1	251	9.8
Wyoming -----	29	6.0	10	6.0	25	6.4	4	15.7	49	4.8	22	7.1
Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>West Virginia -</b>	<b>7 275</b>	<b>2.1</b>	<b>4 872</b>	<b>3.1</b>	<b>5 179</b>	<b>2.6</b>	<b>26 956</b>	<b>1.3</b>	<b>1 180</b>	<b>6.0</b>	<b>3 520</b>	<b>5.1</b>
Barbour -----	139	15.0	55	21.3	121	16.5	189	22.8	25	40.2	24	65.4
Berkeley -----	279	7.4	300	2.3	150	12.5	4 567	4.1	90	20.4	1 225	6.7
Boone -----	9	11.2	1	16.0	4	21.5	2	27.3	6	12.1	2	19.4
Braxton -----	116	16.3	43	36.3	73	23.4	124	28.8	14	62.4	14	60.1
Brooke -----	44	4.6	25	4.9	21	5.9	39	1.3	3	16.5	(D)	(D)
Cabell -----	135	17.4	27	25.0	82	22.5	119	12.7	8	81.8	29	90.3
Calhoun -----	39	13.8	8	23.2	56	11.1	61	18.0	6	7.8	(D)	(D)
Clay -----	21	6.0	4	9.1	28	5.3	17	6.3	15	8.1	14	14.0
Doddridge-----	102	20.5	16	21.6	66	20.8	83	20.7	-	-	-	-
Fayette -----	48	14.1	10	10.9	51	12.9	36	15.0	7	47.0	8	70.8
Gilmer -----	41	30.3	7	37.8	45	25.5	60	31.4	9	50.2	(D)	(D)
Grant -----	220	12.0	299	2.7	75	19.9	605	.6	20	26.9	25	23.2
Greenbrier -----	330	9.0	379	5.4	271	10.8	3 309	3.0	73	20.8	314	9.6
Hampshire -----	272	9.7	184	13.9	180	13.6	1 337	2.5	54	26.3	304	36.0
Hancock -----	37	5.0	20	5.0	12	6.8	147	5.3	8	9.7	4	14.0
Hardy -----	293	8.0	679	1.2	189	11.2	2 287	.5	30	28.2	75	1.4
Harrison -----	237	11.9	76	13.9	143	16.7	265	14.4	65	31.2	69	41.7
Jackson -----	292	9.2	87	22.2	171	13.2	235	32.1	35	38.4	78	41.4
Jefferson -----	247	8.4	366	4.7	187	10.0	3 782	2.9	51	27.5	315	11.6
Kanawha-----	39	12.5	21	11.6	33	15.8	172	1.3	9	23.7	28	17.7
Lewis -----	142	13.3	32	17.8	161	9.9	190	34.5	16	51.5	10	48.2
Lincoln -----	83	21.9	11	23.6	117	18.5	122	8.5	29	43.9	65	22.3
Logan -----	7	10.2	(D)	(D)	6	10.6	(D)	(D)	-	-	-	-
McDowell -----	4	10.1	1	6.6	6	11.3	46	31.3	-	-	-	-
Marion -----	90	20.5	16	22.0	91	21.9	94	17.8	1	-	(D)	(D)
Marshall -----	242	9.8	105	11.3	73	26.9	114	6.3	19	54.3	11	52.6
Mason -----	279	10.4	226	3.3	199	14.5	1 289	2.6	58	30.8	159	35.7
Mercer -----	136	16.9	22	30.3	119	18.5	87	13.9	29	38.1	11	40.5
Mineral -----	118	17.6	67	15.7	97	18.1	226	18.1	36	38.7	50	28.3
Mingo -----	3	17.2	(D)	(D)	3	21.7	(D)	(D)	-	-	-	-
Monongalia -----	182	14.5	63	12.7	97	21.4	464	2.9	28	47.4	33	78.2
Monroe -----	245	10.4	314	42.4	258	10.8	1 033	15.6	63	24.5	82	17.6
Morgan -----	63	8.8	33	8.2	29	15.2	233	1.6	21	21.2	124	10.7
Nicholas -----	56	16.5	13	22.9	53	25.3	98	13.3	11	60.2	10	71.2
Ohio -----	87	6.3	44	8.1	37	14.5	137	2.4	6	29.0	8	9.8
Pendleton -----	342	7.1	493	2.5	201	12.1	735	.8	35	33.0	62	13.6
Pleasants -----	42	6.3	17	6.5	31	6.9	90	8.0	5	16.4	2	19.0
Pocahontas -----	194	13.1	49	18.3	106	20.0	179	19.3	11	66.4	18	54.5
Preston -----	376	7.4	284	10.9	193	13.4	576	3.0	75	27.7	51	40.3
Putnam -----	166	14.8	45	16.9	126	16.5	533	7.0	20	43.3	49	38.5
Raleigh -----	83	20.1	26	32.1	84	21.7	244	7.1	24	41.1	13	35.7
Randolph -----	168	13.5	71	12.3	115	18.1	498	12.1	13	75.0	33	89.6
Ritchie -----	93	22.8	24	18.8	110	17.7	123	15.1	11	65.4	17	24.1
Roane -----	107	20.3	15	31.8	205	11.3	124	23.8	9	85.7	4	93.2
Summers -----	59	25.8	28	13.0	100	18.7	295	4.2	9	66.1	11	16.5
Taylor -----	98	16.4	29	8.5	100	16.8	773	4.0	18	45.9	41	42.0
Tucker -----	82	8.1	23	29.2	33	16.1	66	18.1	5	40.1	6	52.3
Tyler -----	76	20.8	21	32.8	52	24.2	44	14.5	7	67.7	3	34.9
Upshur -----	170	13.6	38	12.4	143	15.1	111	25.0	30	40.7	18	55.1

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-17

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Electricity				Hired farm labor				Contract labor			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
Wayne-----	77	8.9	17	10.2	48	12.3	66	9.9	8	38.2	7	65.3
Webster-----	27	22.0	3	24.6	11	33.4	6	48.6	3	63.4	4	63.4
Wetzel-----	71	18.9	11	19.8	58	25.5	64	25.9	8	68.7	13	21.2
Wirt-----	128	13.3	41	9.3	31	35.1	655	.6	24	46.7	29	39.4
Wood-----	228	9.6	80	17.4	110	16.3	142	20.4	14	51.8	5	42.3
Wyoming-----	11	8.6	4	13.7	18	7.0	40	18.1	6	12.8	(D)	(D)
Farm production expenses <sup>1</sup> —Con.												
Geographic area	Repair and maintenance				Customwork, machine hire, and rental of machinery and equipment				Interest expense			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
West Virginia -	13	117	19 831	1.8	2 391	4.0	2 452	5.9	3 963	3.0	17 179	2.7
Barbour-----	314	7.1	412	9.9	27	43.0	14	46.8	77	17.7	147	22.1
Berkeley-----	391	4.7	1 146	3.9	118	14.4	263	19.3	140	14.7	1 110	8.6
Boone-----	24	7.8	6	10.9	2	30.1	(D)	(D)	5	14.2	(D)	(D)
Braxton-----	217	8.3	164	12.8	35	36.0	42	64.0	53	29.1	64	25.3
Brooke-----	52	4.1	71	4.4	3	10.0	(D)	(D)	17	6.4	40	7.1
Cabell-----	222	9.6	184	19.6	37	37.8	15	38.9	33	41.6	149	42.6
Calhoun-----	102	6.3	110	11.2	12	26.2	4	72.5	25	17.0	67	22.4
Clay-----	62	3.8	48	5.1	8	8.6	4	10.6	21	7.0	39	10.6
Doddridge-----	223	7.3	193	23.1	—	—	—	—	61	22.5	184	27.8
Fayette-----	122	5.7	112	7.4	—	—	—	—	25	19.8	74	41.0
Gilmer-----	143	9.6	262	24.2	2	—	(D)	(D)	45	23.4	80	27.7
Grant-----	320	4.7	587	6.3	57	28.8	24	19.0	152	11.0	970	3.8
Greenbrier-----	572	4.4	1 153	6.4	137	13.3	154	11.9	280	9.2	1 327	7.9
Hampshire-----	461	4.4	924	11.3	167	13.7	105	16.8	166	14.4	603	15.0
Hancock-----	50	4.4	83	5.0	12	7.1	11	6.2	17	6.1	22	10.0
Hardy-----	406	5.4	1 255	4.6	110	19.2	102	18.9	258	10.6	2 517	6.8
Harrison-----	421	5.3	398	12.9	53	28.4	33	48.8	139	19.6	462	26.4
Jackson-----	552	3.2	590	11.0	46	32.3	17	25.8	141	15.6	332	22.7
Jefferson-----	315	3.7	1 480	5.0	139	14.3	460	11.4	142	11.7	1 417	3.1
Kanawha-----	119	5.0	126	8.5	11	25.2	9	4.2	23	19.0	105	14.0
Lewis-----	273	5.0	480	14.7	74	20.4	50	24.5	83	20.2	185	26.7
Lincoln-----	185	10.8	206	8.0	12	80.4	51	76.3	41	32.1	94	12.2
Logan-----	14	8.2	13	11.0	—	—	—	—	1	—	(D)	(D)
McDowell-----	9	8.7	7	11.3	—	—	—	—	—	—	—	—
Marion-----	263	7.0	193	14.5	9	66.9	7	83.4	61	30.2	100	34.3
Marshall-----	334	6.3	385	17.4	61	29.7	24	22.6	66	21.2	204	23.8
Mason-----	502	5.5	1 011	6.4	94	21.9	111	15.9	105	20.8	559	10.5
Mercer-----	300	9.2	150	13.4	17	41.9	5	95.2	77	19.9	276	48.5
Mineral-----	197	9.0	254	10.8	45	31.6	18	26.4	51	29.2	405	29.5
Mingo-----	4	16.3	1	24.9	4	17.2	(D)	(D)	—	—	—	—
Monongalia-----	279	7.7	294	15.8	54	27.9	30	56.9	71	23.3	121	32.5
Monroe-----	519	3.9	891	7.6	125	17.9	80	20.9	223	12.2	561	13.0
Morgan-----	109	5.0	175	11.2	21	20.7	13	29.3	29	18.9	43	17.5
Nicholas-----	204	8.5	192	16.7	1	—	(D)	(D)	44	31.2	97	19.8
Ohio-----	110	4.4	193	7.4	27	17.0	16	17.8	35	14.4	190	23.7
Pendleton-----	441	5.8	1 197	7.0	161	14.5	181	20.4	179	13.1	1 346	6.5
Pleasants-----	81	4.6	88	7.0	11	10.2	13	11.9	19	8.4	85	9.0
Pocahontas-----	281	4.6	322	7.7	101	20.4	33	20.3	90	17.3	443	27.8
Preston-----	628	4.3	1 035	7.2	176	15.0	163	39.0	143	15.7	504	23.9
Putnam-----	350	5.7	264	11.9	19	45.4	57	54.6	70	22.2	115	17.1
Raleigh-----	169	10.1	163	18.0	41	39.2	29	58.8	43	30.8	122	11.2
Randolph-----	299	5.1	392	9.6	53	30.3	78	67.7	108	20.0	270	17.3
Ritchie-----	250	7.2	263	16.4	35	36.8	19	30.6	81	20.3	218	25.3
Roane-----	345	6.0	347	16.5	26	53.1	28	72.7	63	31.3	177	58.5
Summers-----	214	6.9	155	10.7	14	46.6	8	9.7	63	26.0	168	30.6
Taylor-----	207	7.0	188	14.1	41	31.1	(D)	(D)	40	25.9	148	29.0
Tucker-----	122	5.4	114	9.2	15	23.6	4	24.6	24	20.0	62	23.7
Tyler-----	194	6.8	208	17.2	44	27.9	8	41.5	63	22.6	124	28.8
Upshur-----	290	6.8	390	23.7	56	28.6	52	41.5	72	24.7	117	28.9
Wayne-----	126	5.9	126	9.0	19	18.7	7	20.7	33	16.6	69	27.0
Webster-----	72	7.3	37	14.4	5	48.5	14	62.3	7	45.5	8	70.9
Wetzel-----	115	14.2	106	14.4	13	53.5	8	33.6	26	42.3	15	46.7
Wirt-----	151	9.9	241	16.6	14	35.0	53	27.5	34	30.2	357	14.8
Wood-----	349	5.9	416	19.9	25	38.4	15	45.6	95	18.9	274	24.4
Wyoming-----	43	5.0	28	4.8	2	—	(D)	(D)	3	17.2	2	17.2

See footnotes at end of table.

## C-18 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Farm production expenses <sup>1</sup> —Con.											
	Cash rent				Property taxes paid				All other farm production expenses			
	Farms		Value		Farms		Value		Farms		Value	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)
<b>West Virginia</b>	<b>2 126</b>	<b>4.1</b>	<b>4 379</b>	<b>2.8</b>	<b>16 204</b>	<b>1.2</b>	<b>7 599</b>	<b>1.9</b>	<b>14 061</b>	<b>1.3</b>	<b>28 251</b>	<b>1.1</b>
Barbour	51	28.8	15	24.1	418	2.3	101	13.0	350	5.7	472	10.9
Berkeley	88	10.8	381	9.0	446	2.2	377	8.2	424	3.9	2 917	2.4
Boone	1	42.2	(D)	(D)	34	6.4	8	10.5	20	8.1	10	14.2
Braxton	27	38.9	16	28.8	284	2.5	76	13.0	235	7.2	148	12.6
Brooke	5	11.6	4	13.8	75	3.5	35	3.5	69	3.6	114	6.5
Cabell	31	44.3	15	50.6	301	4.3	103	13.3	267	7.0	213	17.5
Calhoun	2	92.7	(D)	(D)	159	2.5	51	6.4	106	6.4	64	8.4
Clay	9	9.0	4	16.4	88	3.4	24	4.4	72	3.6	60	4.0
Doddridge	32	41.9	26	56.3	251	4.0	92	17.4	188	10.1	169	25.0
Fayette	12	33.4	5	31.1	164	3.0	79	12.0	118	6.3	122	6.6
Gilmer	47	22.3	58	21.4	191	6.1	76	18.3	136	8.4	136	16.5
Grant	56	24.2	101	19.4	340	3.5	155	10.1	307	6.5	1 281	3.9
Greenbrier	111	16.0	358	5.8	675	2.2	395	5.0	635	3.0	1 693	4.1
Hampshire	62	24.9	215	9.6	540	1.7	265	9.2	506	3.2	1 019	6.4
Hancock	7	11.9	8	13.8	66	3.9	37	7.5	58	4.1	227	3.0
Hardy	85	20.2	358	1.2	485	1.2	386	8.6	432	3.9	2 812	2.0
Harrison	44	37.4	34	36.6	494	3.7	256	14.1	440	5.2	509	16.4
Jackson	71	22.5	50	30.5	599	2.4	242	9.1	502	4.4	330	8.9
Jefferson	100	14.6	512	6.4	323	3.1	423	11.4	294	4.7	2 805	4.0
Kanawha	8	24.5	5	32.7	154	2.8	65	6.3	103	6.6	149	5.0
Lewis	77	20.8	57	17.9	315	3.3	130	8.4	275	5.5	356	10.1
Lincoln	31	34.1	241	8.1	246	4.7	80	10.6	214	7.7	224	7.8
Logan	1	—	(D)	(D)	19	7.1	6	8.1	16	7.5	18	4.6
McDowell	—	—	—	—	9	8.7	11	13.7	8	8.5	22	21.5
Marion	17	45.5	(D)	(D)	314	3.2	188	16.4	222	9.9	122	18.7
Marshall	8	44.1	8	36.8	392	3.0	95	6.9	351	5.1	386	7.6
Mason	76	23.4	308	24.4	649	3.2	289	8.8	534	5.0	1 145	3.4
Mercer	34	31.7	8	23.7	473	3.7	153	10.0	431	5.3	299	9.5
Mineral	28	27.8	28	16.3	315	1.3	207	17.3	280	4.7	303	9.8
Mingo	3	17.2	(D)	(D)	7	11.2	4	18.1	6	13.3	4	18.8
Monongalia	28	36.4	18	19.6	394	1.7	157	7.8	336	6.2	232	11.0
Monroe	141	15.6	462	5.7	582	2.3	299	10.5	536	3.2	1 358	5.1
Morgan	26	15.7	28	11.5	128	2.4	73	6.1	111	4.3	153	2.4
Nicholas	23	47.0	13	37.3	258	3.9	75	26.4	204	8.0	213	19.4
Ohio	20	17.0	19	26.4	122	3.0	65	10.4	118	3.1	258	3.5
Pendleton	135	18.8	338	9.7	528	2.8	292	4.3	507	4.1	1 982	2.3
Pleasants	5	19.2	12	20.1	106	4.2	33	4.7	74	4.8	97	6.8
Pocahontas	72	25.1	149	14.9	348	2.2	172	11.1	323	4.6	497	15.0
Preston	112	17.2	105	19.1	767	2.0	443	6.8	672	3.4	1 331	4.8
Putnam	14	43.0	48	14.9	405	3.6	193	8.8	364	5.3	273	9.2
Raleigh	24	48.8	4	29.5	222	4.6	92	31.7	186	7.8	157	17.7
Randolph	64	14.6	60	10.3	360	1.2	111	11.6	315	4.3	541	5.9
Ritchie	19	46.3	14	21.1	299	2.7	120	11.3	264	6.3	249	14.7
Roane	42	37.9	42	44.0	423	2.5	151	10.1	382	4.7	384	16.9
Summers	48	29.8	33	24.3	306	3.4	73	11.3	264	6.9	319	7.1
Taylor	33	33.0	28	39.6	248	2.6	99	11.0	220	5.5	454	3.4
Tucker	25	13.3	35	28.6	159	2.7	50	9.4	128	4.5	140	12.3
Tyler	17	44.5	11	30.3	227	3.5	73	12.9	158	9.7	148	17.4
Upshur	55	23.2	57	28.6	407	1.2	140	7.6	323	6.0	265	12.1
Wayne	23	20.7	30	34.2	161	3.2	49	6.0	135	4.9	127	8.0
Webster	8	24.7	3	34.3	82	6.3	28	10.0	74	8.1	56	19.8
Wetzel	—	—	—	—	193	3.5	59	11.1	161	8.7	125	20.2
Wirt	29	41.9	30	22.4	188	2.9	117	20.4	171	6.6	461	4.4
Wood	32	31.0	15	11.7	410	3.3	201	10.2	393	4.3	283	9.3
Wyoming	7	11.2	3	13.0	55	4.6	25	6.9	43	5.1	21	5.7
Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>				Total cropland				Harvested cropland				
Geographic area	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>West Virginia</b>	<b>17 022</b>	<b>1.1</b>	<b>49 571</b>	<b>3.4</b>	<b>15 891</b>	<b>1.1</b>	<b>1 294 134</b>	<b>.8</b>	<b>14 531</b>	<b>1.1</b>	<b>555 818</b>	<b>.8</b>
Barbour	430	1.2	629	20.8	415	.9	36 684	1.4	388	1.0	13 706	1.2
Berkeley	473	1.2	2 154	9.4	442	1.1	48 632	1.0	409	1.1	30 324	1.0
Boone	36	6.2	(D)	(D)	33	3.0	405	7.6	30	3.7	142	6.1
Braxton	293	1.3	135	163.6	287	1.0	25 401	1.6	264	1.1	8 752	2.0
Brooke	80	3.4	180	8.0	78	1.3	7 336	2.5	72	1.8	3 236	2.7
Cabell	327	1.7	261	118.1	308	1.7	10 845	2.6	284	1.8	4 020	2.9
Calhoun	163	2.3	(D)	(D)	155	1.6	10 915	2.2	144	1.8	3 708	2.2
Clay	91	3.3	42	28.5	88	1.3	6 340	3.3	75	1.8	1 515	3.5
Doddridge	261	1.1	(D)	(D)	249	.8	20 729	1.6	231	.9	6 530	2.2
Fayette	170	2.6	241	23.5	168	1.8	9 972	2.7	156	1.9	4 200	2.5
Gilmer	220	1.4	(D)	(D)	202	1.1	18 654	2.2	184	1.3	6 153	2.3
Grant	354	1.0	2 419	9.0	306	1.1	33 719	1.2	289	1.1	13 081	1.3
Greenbrier	706	1.2	11 611	3.3	633	1.2	55 389	1.3	558	1.3	23 738	1.2
Hampshire	548	1.3	505	103.1	515	1.2	52 194	1.5	474	1.3	23 724	1.4

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-19

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Net cash return from agricultural sales for the farm unit (see text) <sup>1</sup>				Total cropland				Harvested cropland			
	Farms		Value		Farms		Acres		Farms		Acres	
	Number	Relative standard error of estimate (percent)	Total (\$1,000)	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Hancock -----	75	3.7	(D)	(D)	69	1.6	3 976	3.2	66	1.8	2 429	5.1
Hardy -----	486	1.2	7 001	5.8	404	1.1	45 815	1.0	360	1.2	20 900	.9
Harrison -----	536	1.3	(D)	(D)	495	1.2	42 558	1.5	457	1.2	14 597	1.7
Jackson -----	631	1.3	272	97.5	592	1.2	45 970	1.7	543	1.2	17 231	2.3
Jefferson -----	334	.9	1 394	33.0	300	1.0	56 180	.8	259	1.1	37 226	.9
Kanawha -----	158	2.4	819	6.0	131	2.0	5 872	3.5	107	2.3	1 727	2.7
Lewis -----	336	1.1	682	50.1	318	.9	39 186	1.5	299	1.0	11 804	1.4
Lincoln -----	268	2.0	644	26.7	261	1.7	8 807	4.1	251	1.7	2 460	2.9
Logan -----	19	7.1	(D)	(D)	18	2.3	266	4.5	15	4.4	137	4.6
McDowell -----	9	8.7	(D)	(D)	9	2.0	404	8.6	6	7.5	258	14.7
Marion -----	330	1.2	211	70.6	309	1.0	21 466	1.7	279	1.1	7 722	1.7
Marshall -----	412	1.3	438	52.6	395	1.1	27 566	1.5	365	1.2	12 733	1.5
Mason -----	709	1.3	4 331	10.0	670	1.3	48 651	1.4	636	1.3	24 434	1.2
Mercer -----	496	2.7	404	42.7	463	2.6	20 672	2.8	399	2.6	7 840	2.7
Mineral -----	315	1.3	(D)	(D)	300	1.0	28 641	1.7	269	1.2	12 502	1.7
Mingo -----	9	9.8	32	26.7	7	7.6	91	21.1	5	13.7	13	11.5
Monongalia -----	403	1.3	(D)	(D)	384	1.2	27 831	2.0	363	1.2	11 329	1.9
Monroe -----	607	1.3	2 563	13.8	555	1.2	58 872	1.4	506	1.3	28 761	1.0
Morgan -----	134	2.0	(D)	(D)	132	.9	9 916	2.9	121	1.1	5 276	3.2
Nicholas -----	283	1.4	765	28.0	272	1.3	15 267	2.3	254	1.3	6 359	1.7
Ohio -----	127	2.4	238	26.0	124	.9	12 469	1.7	119	1.0	7 354	1.8
Pendleton -----	562	1.0	6 052	5.6	493	1.0	49 024	1.4	431	1.1	16 296	1.1
Pleasants -----	111	4.1	(D)	(D)	103	2.4	5 741	4.6	86	2.9	3 050	5.5
Pocahontas -----	355	1.4	1 438	20.7	327	1.3	29 208	1.7	302	1.4	13 084	1.3
Preston -----	798	1.0	(D)	(D)	764	.9	59 351	1.1	720	.9	32 582	1.2
Putnam -----	443	1.7	215	112.3	413	1.5	18 505	1.8	377	1.6	7 917	2.5
Raleigh -----	237	1.7	(D)	(D)	228	1.4	12 518	1.9	213	1.5	5 377	1.7
Randolph -----	362	1.2	(D)	(D)	342	1.0	36 894	1.6	308	1.1	15 744	1.4
Ritchie -----	308	1.4	402	45.0	294	1.2	30 023	1.8	261	1.3	10 085	1.6
Roane -----	437	1.2	(D)	(D)	412	1.2	35 383	1.9	384	1.2	12 285	2.2
Summers -----	326	1.2	638	30.3	302	1.2	16 727	1.7	271	1.3	6 927	2.0
Taylor -----	256	1.3	1 213	11.9	245	.9	20 857	1.7	214	1.1	7 864	1.2
Tucker -----	169	2.0	239	29.5	161	.9	11 834	2.3	148	1.1	5 317	1.7
Tyler -----	238	1.3	(D)	(D)	229	1.0	18 803	1.6	211	1.1	6 726	1.4
Upshur -----	407	1.2	483	34.0	383	1.0	25 110	1.6	359	1.1	10 707	1.7
Wayne -----	172	2.2	286	16.7	161	1.7	8 465	2.4	136	2.0	2 622	2.4
Webster -----	93	3.2	(D)	(D)	87	2.2	2 984	3.7	72	2.7	1 312	4.6
Wetzel -----	199	1.7	267	77.1	186	1.3	11 882	2.2	171	1.5	4 093	2.1
Wirt -----	195	1.4	330	43.0	192	1.2	13 836	2.0	187	1.2	6 009	1.9
Wood -----	467	1.1	(D)	(D)	432	1.0	27 234	1.6	400	1.1	11 201	1.6
Wyoming -----	58	4.6	63	22.3	50	2.5	2 064	6.4	43	3.2	699	6.1
Irrigated land					Livestock and poultry							
Geographic area	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
	Farms		Acres		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
<b>West Virginia -</b>	<b>312</b>	<b>1.9</b>	<b>2 769</b>	<b>2.3</b>	<b>12 431</b>	<b>1.1</b>	<b>430 708</b>	<b>.8</b>	<b>10 570</b>	<b>1.1</b>	<b>197 886</b>	<b>.9</b>
Barbour -----	6	7.9	17	9.5	365	1.0	10 653	1.3	322	1.1	5 264	1.6
Berkeley -----	20	6.6	108	8.1	281	1.5	12 723	1.8	219	1.7	5 482	2.9
Boone -----	1	40.0	(D)	(D)	13	8.1	100	11.7	11	9.0	51	13.8
Braxton -----	1	26.4	(D)	(D)	215	1.4	7 049	2.2	188	1.5	3 827	2.4
Brooke -----	-	-	-	-	53	2.8	1 412	3.4	42	3.5	498	4.9
Cabell -----	12	10.1	79	4.5	174	2.4	3 001	3.3	147	2.6	1 622	3.7
Calhoun -----	5	15.3	38	20.9	123	2.1	3 093	3.1	103	2.4	1 667	3.5
Clay -----	2	23.4	(D)	(D)	69	2.2	1 548	2.3	58	2.6	877	2.8
Doddridge -----	3	12.0	(D)	(D)	203	1.1	5 301	1.1	183	1.2	2 439	1.4
Fayette -----	1	41.6	(D)	(D)	129	2.3	2 987	2.5	119	2.5	1 580	2.8
Gilmer -----	3	15.5	3	15.5	179	1.3	5 493	2.0	145	1.6	2 703	2.2
Grant -----	2	18.7	(D)	(D)	285	1.1	12 671	1.2	256	1.2	6 984	1.2
Greenbrier -----	10	9.0	31	10.8	539	1.3	33 981	1.1	422	1.5	13 682	1.4
Hampshire -----	3	16.1	33	21.9	408	1.4	16 459	1.5	353	1.5	8 483	1.7
Hancock -----	6	10.6	36	9.5	46	3.0	952	6.5	36	3.9	513	7.3
Hardy -----	4	15.2	8	17.6	329	1.3	23 084	1.1	276	1.4	9 807	1.6
Harrison -----	6	12.9	15	14.5	400	1.3	10 872	1.4	348	1.4	5 808	1.5
Jackson -----	13	7.8	34	10.9	477	1.3	11 614	1.7	425	1.4	6 240	2.0
Jefferson -----	20	6.5	745	.9	206	1.4	18 286	1.0	148	1.9	4 512	2.1
Kanawha-----	5	11.1	(D)	(D)	97	2.5	1 642	2.4	91	2.5	913	2.5
Lewis -----	2	20.5	(D)	(D)	258	1.1	10 092	1.4	199	1.4	5 012	1.7
Lincoln -----	8	11.6	58	8.9	110	2.7	1 387	3.3	101	2.8	749	3.3
Logan -----	1	-	(D)	(D)	10	7.3	150	4.0	8	9.8	(D)	(D)
McDowell -----	-	-	-	-	2	21.7	(D)	(D)	2	21.7	(D)	(D)
Marion -----	8	9.2	27	15.0	251	1.2	4 672	1.4	229	1.3	2 502	1.7
Marshall -----	2	12.8	(D)	(D)	331	1.3	7 685	1.4	282	1.5	3 637	1.7
Mason -----	22	6.3	220	11.3	472	1.5	17 289	1.4	386	1.6	6 497	2.0
Mercer -----	7	13.6	60	18.4	362	2.7	7 324	2.2	320	2.7	3 857	2.2
Mineral -----	7	11.3	10	17.1	218	1.4	7 089	1.8	187	1.6	3 119	2.0

See footnotes at end of table.

## C-20 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Irrigated land				Livestock and poultry							
	Farms		Acres		Cattle and calves inventory				Beef cows inventory			
					Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Mingo -----	—	—	—	—	4	12.1	(D)	(D)	3	15.7	(D)	(D)
Monongalia -----	12	7.7	39	12.9	307	1.4	7 063	2.1	279	1.5	3 876	2.5
Monroe -----	6	13.1	81	17.0	497	1.3	29 073	1.6	385	1.5	12 055	2.0
Morgan -----	7	10.3	12	14.4	71	2.3	2 026	3.5	62	2.6	(D)	(D)
Nicholas -----	7	10.4	44	10.0	216	1.5	5 867	1.9	189	1.7	(D)	(D)
Ohio -----	2	—	(D)	(D)	105	1.2	3 186	1.6	84	1.7	1 087	2.9
Pendleton -----	6	13.6	(D)	(D)	428	1.1	21 071	1.1	338	1.3	9 074	1.2
Pleasants -----	1	47.1	(D)	(D)	67	3.6	1 322	4.7	54	4.3	561	6.8
Pocahontas -----	3	17.3	4	19.6	270	1.5	14 383	1.3	231	1.7	6 960	1.5
Preston -----	4	16.4	(D)	(D)	614	1.0	20 466	1.0	518	1.1	8 371	1.3
Putnam -----	15	6.6	105	12.7	267	1.8	5 148	1.9	247	1.9	2 766	2.0
Raleigh -----	4	10.7	13	22.5	183	1.7	5 073	1.8	157	2.0	2 652	2.0
Randolph -----	9	8.3	59	7.9	269	1.3	11 112	1.3	211	1.5	4 720	1.7
Ritchie -----	4	15.5	9	17.9	229	1.5	8 505	2.2	206	1.6	3 712	3.9
Roane -----	7	9.4	117	22.1	341	1.3	8 668	1.7	317	1.4	4 839	1.8
Summers -----	7	9.1	52	5.0	262	1.4	7 998	1.5	219	1.6	3 760	2.0
Taylor -----	5	8.4	20	7.0	204	1.2	6 392	1.0	171	1.4	3 175	1.4
Tucker -----	1	36.5	(D)	(D)	133	1.2	3 663	2.7	110	1.6	1 688	2.6
Tyler -----	4	16.9	10	21.7	177	1.4	4 377	2.4	157	1.5	2 506	3.4
Upshur -----	5	14.0	(D)	(D)	287	1.3	7 398	1.7	239	1.4	3 717	1.9
Wayne -----	3	18.2	7	30.2	127	2.0	2 993	2.2	111	2.2	1 480	2.7
Webster -----	2	28.8	(D)	(D)	66	3.0	840	3.7	57	3.3	446	4.2
Wetzel -----	6	11.0	(D)	(D)	134	1.9	2 069	2.5	118	2.1	1 159	3.6
Wirt -----	3	14.3	(D)	(D)	159	1.5	4 871	2.8	133	1.8	2 682	3.7
Wood -----	7	9.1	79	16.5	364	1.2	7 635	1.6	328	1.3	3 958	1.9
Wyoming -----	2	21.7	(D)	(D)	45	3.0	815	2.9	40	3.5	393	3.5
Livestock and poultry —Con.												
Geographic area	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
					Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
West Virginia -	972	1.1	23 366	.5	841	1.4	26 760	1.0	1 188	1.2	57 091	1.2
Barbour -----	17	5.6	386	3.6	14	7.6	177	10.6	11	7.3	261	8.7
Berkeley -----	34	3.7	2 241	1.4	45	3.9	8 961	.5	23	6.3	625	7.8
Boone -----	—	—	—	—	1	—	(D)	(D)	—	—	—	—
Braxton -----	16	7.5	43	13.0	21	5.8	152	7.7	17	6.1	626	6.5
Brooke -----	8	8.8	284	5.9	1	35.5	(D)	(D)	5	15.7	311	27.0
Cabell -----	12	11.1	116	21.3	11	9.6	83	19.1	4	19.3	60	24.8
Calhoun -----	20	6.7	32	8.1	7	12.7	23	14.8	—	—	—	—
Clay -----	7	11.5	29	12.7	1	29.4	(D)	(D)	2	30.1	(D)	(D)
Doddridge-----	12	7.5	17	8.4	11	7.1	115	20.2	15	6.1	448	6.9
Fayette -----	8	9.6	115	1.2	13	8.0	120	8.9	11	9.3	246	10.3
Gilmer -----	17	6.6	20	7.1	7	9.1	84	13.9	12	7.1	365	6.4
Grant -----	15	5.3	242	.7	19	5.2	781	1.5	51	3.2	1 871	3.7
Greenbrier -----	60	3.6	1 497	1.8	26	6.2	578	7.8	63	3.7	3 099	4.4
Hampshire -----	19	6.7	95	2.4	45	4.3	1 189	4.5	38	4.6	1 899	3.3
Hancock -----	3	17.0	4	20.2	5	13.8	27	17.3	4	16.9	54	20.0
Hardy -----	32	4.5	625	1.8	47	3.2	2 078	3.4	66	3.7	3 639	4.5
Harrison -----	26	4.7	568	2.4	8	9.8	(D)	(D)	13	8.9	377	14.8
Jackson -----	26	5.4	215	4.3	31	5.4	379	8.2	27	5.0	957	20.4
Jefferson -----	45	2.1	4 539	.5	18	5.3	1 338	4.5	12	9.2	931	15.0
Kanawha -----	7	13.2	65	5.7	7	9.6	147	1.8	6	10.8	156	9.7
Lewis -----	22	5.2	192	3.2	15	6.7	64	9.0	26	5.0	867	5.0
Lincoln -----	5	15.4	25	24.2	7	12.1	56	14.3	4	13.5	50	16.2
Logan -----	2	18.6	(D)	(D)	2	30.8	(D)	(D)	—	—	—	—
McDowell -----	—	—	—	—	1	—	(D)	(D)	—	—	—	—
Marion -----	14	7.5	31	9.8	11	8.0	173	15.9	12	7.7	337	10.4
Marshall -----	39	4.2	963	3.0	18	7.9	166	9.7	33	4.8	1 063	5.8
Mason -----	47	3.2	2 824	.4	26	5.7	1 007	4.2	11	9.7	933	11.5
Mercer -----	9	9.3	18	16.1	28	6.9	425	12.5	22	7.3	542	8.3
Mineral -----	14	5.6	441	2.7	16	7.6	126	8.4	36	4.3	1 183	3.3
Mingo -----	—	—	—	—	4	17.2	226	22.3	—	—	—	—
Monongalia -----	8	7.7	228	3.3	15	6.9	208	2.6	32	5.2	1 427	4.1
Monroe -----	51	3.4	1 770	1.8	48	4.4	829	7.6	55	3.9	2 858	5.5
Morgan -----	3	6.4	(D)	(D)	10	8.9	170	11.1	2	18.0	(D)	(D)
Nicholas -----	10	8.7	(D)	(D)	12	8.0	281	15.8	9	8.6	357	8.7
Ohio -----	20	3.7	721	2.8	9	7.6	106	13.4	8	8.1	268	10.4
Pendleton -----	35	4.8	193	4.0	39	4.2	2 786	2.7	205	1.8	14 467	1.6
Pleasants -----	3	20.8	5	18.8	2	31.5	(D)	(D)	1	41.8	(D)	(D)
Pocahontas -----	22	5.9	168	9.2	16	7.8	268	9.5	97	2.6	6 457	2.8
Preston -----	79	2.5	1 951	1.7	51	3.9	1 176	12.0	49	3.5	2 231	5.3
Putnam -----	13	8.5	23	9.9	13	8.7	80	7.2	9	11.4	177	11.2
Raleigh -----	9	10.4	88	3.3	6	13.7	188	21.2	7	9.6	188	10.3
Randolph -----	24	4.9	530	1.1	14	7.5	284	2.8	70	2.7	4 747	3.0
Ritchie -----	13	7.3	22	8.6	11	8.1	116	2.7	9	8.8	264	11.2
Roane -----	19	6.2	28	7.7	13	8.2	92	15.8	21	6.6	393	8.1

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-21

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Livestock and poultry —Con.											
	Milk cows inventory				Hogs and pigs inventory				Sheep and lambs inventory			
	Farms		Total		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)	
Summers -----	17	7.2	246	2.5	15	7.2	79	11.9	10	7.5	393	4.5
Taylor -----	10	9.4	221	7.1	15	7.2	103	8.5	5	13.8	120	15.4
Tucker -----	8	7.9	53	25.5	8	8.2	350	14.5	12	6.4	331	5.1
Tyler -----	15	5.9	271	5.8	10	8.4	72	13.2	8	9.2	207	9.6
Upshur -----	22	5.9	136	6.9	12	7.9	41	8.6	15	7.5	260	9.8
Wayne -----	9	9.7	134	4.4	10	9.3	229	19.0	4	13.6	(D)	(D)
Webster -----	7	13.0	12	17.9	7	13.9	18	14.5	7	12.8	107	18.7
Wetzel -----	8	9.7	66	8.0	13	7.8	134	5.2	15	7.7	325	7.2
Wirt -----	14	6.4	312	4.3	6	10.4	23	12.9	3	17.1	94	14.7
Wood -----	13	6.7	211	5.1	18	6.5	270	8.5	10	8.2	303	13.9
Wyoming-----	4	16.3	13	21.5	2	27.7	(D)	(D)	1	37.3	(D)	(D)
Livestock and poultry —Con.												
Geographic area	Hens and pullets of laying age inventory				Broilers and other meat-type chickens sold							
	Farms		Total		Farms		Total		Farms		Total	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Number	Relative standard error of estimate (percent)	
	1 246	1.4	1 119 500	1.8	136	.8	50 669 811	.1				
Barbour -----	23	5.9	528	7.5	—	—	—	—	—	—	—	
Berkeley -----	25	6.3	(D)	(D)	—	—	—	—	—	—	—	
Boone -----	8	10.0	179	11.3	—	—	—	—	—	—	—	
Braxton -----	27	5.4	605	6.5	1	36.4	(D)	(D)	—	—	—	
Brooke -----	6	13.9	128	14.3	—	—	—	—	—	—	—	
Cabell -----	24	6.8	459	11.3	—	—	—	—	—	—	—	
Calhoun -----	27	5.7	412	6.3	—	—	—	—	—	—	—	
Clay -----	7	11.4	243	16.3	—	—	—	—	—	—	—	
Doddridge-----	22	5.2	508	5.8	3	13.3	185	14.1	—	—	—	
Fayette -----	10	11.1	164	12.7	—	—	—	—	—	—	—	
Gilmer -----	24	5.5	417	6.9	—	—	—	—	—	—	—	
Grant -----	27	4.1	124 395	2.3	29	1.3	12 139 400	.2				
Greenbrier -----	42	4.9	972	6.4	2	14.9	(D)	(D)	—	—	—	
Hampshire -----	44	4.4	118 459	4.6	3	—	879 600	—	—	—	—	
Hancock -----	6	12.9	216	19.0	—	—	—	—	—	—	—	
Hardy -----	68	3.0	655 264	2.8	67	.4	24 866 045	.1				
Harrison -----	32	5.0	1 032	6.9	1	31.8	(D)	(D)	—	—	—	
Jackson -----	37	4.8	503	6.4	—	—	—	—	—	—	—	
Jefferson -----	20	6.8	2 758	18.4	—	—	—	—	—	—	—	
Kanawha -----	11	11.2	132	12.3	—	—	—	—	—	—	—	
Lewis -----	22	5.6	391	7.1	1	—	(D)	(D)	—	—	—	
Lincoln -----	19	8.2	316	10.0	—	—	—	—	—	—	—	
Logan -----	3	22.7	65	21.5	—	—	—	—	—	—	—	
McDowell -----	—	—	—	—	—	—	—	—	—	—	—	
Marion -----	22	5.5	435	9.2	—	—	—	—	—	—	—	
Marshall -----	22	6.5	462	8.7	1	38.4	(D)	(D)	—	—	—	
Mason -----	27	6.3	341	7.1	1	29.5	(D)	(D)	—	—	—	
Mercer -----	32	5.9	525	7.2	—	—	—	—	—	—	—	
Mineral -----	37	4.4	43 633	9.1	1	—	(D)	(D)	—	—	—	
Mingo -----	—	—	—	—	—	—	—	—	—	—	—	
Monongalia -----	21	6.3	(D)	(D)	1	—	(D)	(D)	—	—	—	
Monroe -----	32	5.3	533	5.8	—	—	—	—	—	—	—	
Morgan -----	11	8.7	366	11.1	—	—	—	—	—	—	—	
Nicholas -----	25	5.6	2 045	17.6	—	—	—	—	—	—	—	
Ohio -----	7	8.5	294	16.6	—	—	—	—	—	—	—	
Pendleton -----	54	3.6	126 620	1.7	23	—	12 459 329	—				
Pleasants -----	5	18.8	143	22.1	2	29.2	(D)	(D)	—	—	—	
Pocahontas -----	35	4.7	1 045	4.3	—	—	—	—	—	—	—	
Preston -----	53	3.7	1 444	4.4	—	—	—	—	—	—	—	
Putnam -----	16	8.1	3 286	30.1	—	—	—	—	—	—	—	
Raleigh -----	18	7.6	269	8.7	—	—	—	—	—	—	—	
Randolph -----	28	5.2	792	7.1	—	—	—	—	—	—	—	
Ritchie -----	34	4.7	578	5.3	—	—	—	—	—	—	—	
Roane -----	32	5.2	510	6.6	—	—	—	—	—	—	—	
Summers -----	27	5.3	525	5.3	—	—	—	—	—	—	—	
Taylor -----	14	7.5	311	12.1	—	—	—	—	—	—	—	
Tucker -----	13	6.1	343	7.8	—	—	—	—	—	—	—	
Tyler -----	16	6.0	536	8.2	—	—	—	—	—	—	—	
Upshur -----	40	4.6	608	5.8	—	—	—	—	—	—	—	
Wayne -----	11	10.4	232	7.0	—	—	—	—	—	—	—	
Webster -----	15	8.7	482	14.8	—	—	—	—	—	—	—	
Wetzel -----	26	5.4	678	6.3	—	—	—	—	—	—	—	
Wirt -----	17	7.4	214	9.2	—	—	—	—	—	—	—	
Wood -----	14	7.7	219	10.1	—	—	—	—	—	—	—	
Wyoming-----	8	11.9	167	15.4	—	—	—	—	—	—	—	

See footnotes at end of table.

## C-22 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested											
	Corn for grain or seed								Corn for silage or green chop			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, green	Relative standard error of estimate (percent)
<b>West Virginia</b>	<b>1 517</b>	<b>1.1</b>	<b>44 564</b>	<b>.8</b>	<b>4 668 501</b>	<b>.7</b>	<b>1 027</b>	<b>1.0</b>	<b>27 674</b>	<b>.7</b>	<b>433 877</b>	<b>.6</b>
Barbour	11	8.9	41	8.2	4 100	8.1	20	5.4	205	3.4	3 308	3.6
Berkeley	99	2.5	3 242	2.2	291 207	1.9	48	2.9	2 157	2.3	32 376	2.2
Boone	3	19.9	3	19.9	260	22.6	—	—	—	—	—	—
Braxton	15	6.7	76	5.6	8 590	5.2	3	10.3	42	7.3	510	6.6
Brooke	21	5.5	292	5.6	26 402	5.0	4	5.4	98	4.9	1 580	4.1
Cabell	35	5.4	548	6.0	55 935	5.4	2	27.5	(D)	(D)	(D)	(D)
Calhoun	7	9.9	129	14.5	3 940	10.3	1	37.0	(D)	(D)	(D)	(D)
Clay	1	31.1	(D)	(D)	(D)	(D)	1	44.5	(D)	(D)	(D)	(D)
Doddridge	2	18.4	(D)	(D)	(D)	(D)	1	18.9	(D)	(D)	(D)	(D)
Fayette	22	6.4	112	4.0	9 746	3.1	10	8.6	105	15.1	1 488	16.5
Gilmer	11	8.0	103	8.9	9 175	8.0	1	41.6	(D)	(D)	(D)	(D)
Grant	17	4.2	178	3.3	17 832	3.0	28	3.7	606	2.1	9 136	2.3
Greenbrier	43	4.1	506	5.4	54 296	5.2	93	2.6	2 428	1.6	36 614	1.6
Hampshire	67	3.4	1 429	4.1	155 770	4.1	34	4.2	575	4.4	8 336	4.4
Hancock	21	5.6	197	6.7	15 462	7.6	2	—	(D)	(D)	(D)	(D)
Hardy	93	2.0	5 108	.9	597 973	.8	81	1.9	2 923	1.7	46 592	1.8
Harrison	9	9.4	84	3.8	9 162	2.9	17	5.5	262	3.1	4 835	3.8
Jackson	51	3.8	593	7.0	59 033	7.7	13	6.9	170	6.7	2 792	6.0
Jefferson	97	1.9	10 140	1.9	1 118 813	1.4	63	1.8	4 104	.9	71 317	.7
Kanawha	7	10.6	26	11.7	1 793	14.0	5	9.6	51	6.7	(D)	(D)
Lewis	8	9.1	239	2.1	24 000	2.1	14	6.5	180	3.8	3 087	3.8
Lincoln	20	6.6	82	6.1	5 632	5.0	3	15.4	11	21.0	70	16.5
Logan	2	23.7	(D)	(D)	(D)	(D)	1	—	(D)	(D)	(D)	(D)
McDowell	1	43.3	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Marion	7	6.1	80	3.0	9 435	1.5	—	—	—	—	—	—
Marshall	17	7.3	193	14.0	16 925	15.8	25	4.4	667	2.5	7 851	3.3
Mason	110	2.4	4 976	1.4	583 689	1.3	48	2.8	2 107	1.4	34 410	1.5
Mercer	18	7.9	86	8.7	6 576	9.2	13	7.2	130	4.3	1 688	3.6
Mineral	41	3.8	808	4.8	88 353	5.2	26	4.3	615	3.0	9 125	2.2
Mingo	—	—	—	—	—	—	—	—	—	—	—	—
Monongalia	20	6.1	145	8.0	11 530	11.3	9	9.6	168	8.8	3 214	9.2
Monroe	87	3.0	5 731	.5	508 057	.6	113	2.4	3 080	2.5	42 317	2.8
Morgan	44	3.3	575	3.7	42 593	4.4	12	7.0	155	6.9	1 905	6.9
Nicholas	13	7.8	45	9.7	3 465	11.0	14	7.2	227	3.0	3 174	2.3
Ohio	33	3.5	549	3.9	41 423	3.6	13	5.0	296	2.5	3 757	2.0
Pendleton	35	3.1	1 165	2.3	137 624	2.2	57	2.6	1 093	1.4	18 749	1.3
Pleasants	12	10.5	436	15.1	61 850	16.0	4	16.4	52	9.2	895	13.3
Pocahontas	27	4.4	750	6.7	79 614	6.5	54	3.3	733	2.5	13 172	2.5
Preston	119	2.3	2 030	6.2	204 431	6.1	87	2.4	2 167	1.6	36 249	1.5
Putnam	42	3.9	506	3.5	50 972	3.5	4	10.5	19	11.4	285	11.4
Raleigh	8	10.2	85	6.6	9 029	6.4	10	10.0	120	6.4	1 226	5.8
Randolph	29	3.9	1 011	.6	121 275	.5	14	5.2	572	1.2	10 949	1.2
Ritchie	6	11.4	23	13.8	1 647	14.7	9	7.2	207	7.3	2 811	8.0
Roane	14	7.4	143	10.8	3 482	10.5	2	23.6	(D)	(D)	(D)	(D)
Summers	20	6.0	253	4.9	30 176	6.1	10	7.8	353	8.2	5 145	5.4
Taylor	2	13.7	(D)	(D)	(D)	(D)	5	12.8	218	8.9	4 495	8.8
Tucker	15	5.4	221	8.3	23 400	7.1	9	6.7	59	9.1	726	10.3
Tyler	25	4.8	300	3.8	33 289	3.2	5	13.2	28	15.3	373	10.6
Upshur	9	9.1	13	9.3	610	14.9	11	6.8	162	5.3	1 718	4.3
Wayne	23	5.1	277	3.2	25 087	3.8	2	—	(D)	(D)	(D)	(D)
Webster	3	23.8	8	24.3	192	24.5	2	21.7	(D)	(D)	(D)	(D)
Wetzel	15	6.8	100	7.9	6 115	7.7	3	10.5	18	10.6	165	11.5
Wirt	7	10.3	67	12.9	6 550	12.4	4	5.0	78	3.1	1 422	4.3
Wood	48	3.7	828	3.4	89 401	3.2	17	5.7	226	5.2	3 081	5.1
Wyoming	5	15.1	17	15.3	1 400	16.2	—	—	—	—	—	—
Selected crops harvested —Con.												
Geographic area	Wheat for grain						Oats for grain					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
	West Virginia	307	1.5	9 058	.9	.8	406	1.5	3 677	1.4	201 339	1.4
Barbour	2	12.5	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Berkeley	44	3.8	841	4.1	41 054	4.1	36	4.5	372	3.2	19 990	3.3
Boone	—	—	—	—	—	—	—	—	—	—	—	—
Braxton	—	—	—	—	—	—	—	—	—	—	—	—
Brooke	2	20.8	(D)	(D)	(D)	(D)	5	16.1	73	9.5	4 160	6.7
Cabell	—	—	—	—	—	—	—	—	—	—	—	—
Calhoun	—	—	—	—	—	—	—	—	—	—	—	—
Clay	—	—	—	—	—	—	—	—	—	—	—	—
Doddridge	—	—	—	—	—	—	2	18.4	(D)	(D)	(D)	(D)
Fayette	—	—	—	—	—	—	3	18.3	14	30.1	1 140	34.4
Gilmer	—	—	—	—	—	—	—	—	—	—	—	—
Grant	4	6.7	23	4.6	1 250	4.3	9	7.2	57	8.9	3 705	11.6
Greenbrier	1	29.8	(D)	(D)	(D)	(D)	24	5.6	155	5.7	7 070	5.9
Hampshire	31	4.9	357	4.5	13 726	4.4	27	4.9	220	4.5	12 036	4.5

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

TIPS [UPF] BATCH\_870 [ACEN,C\_ARLEDGE] 3/14/94 8:52 AM MACHINE: EPCV20 DATA:VOL1\_TIPS\_APX\_55.TIPS;1 \* 3/8/94 06:12:00 TAPE: NO reel FRAME: 17 TSF:TIPS92-06120940.DAT;1 3/8/94 06:12:17 UTF:TIPS93-06120940.DAT;1 3/8/94 06:12:17 META:VOL1\_TIPS96\_APX\_55.DAT;2 3/8/94 06:13:19

## APPENDIX C C-23

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Wheat for grain								Oats for grain			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Bushels	Relative standard error of estimate (percent)
Hancock -----	6	11.2	39	12.7	1 300	12.1	14	7.0	99	8.7	5 947	10.8
Hardy -----	17	4.4	454	3.6	19 950	3.1	13	5.1	105	4.7	5 688	4.2
Harrison -----	1	24.1	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Jackson -----	5	11.4	63	12.1	1 508	14.4	4	15.3	54	17.1	2 172	17.6
Jefferson -----	62	2.1	3 853	.9	220 184	.9	14	5.5	275	2.5	15 886	2.9
Kanawha -----	2	17.0	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Lewis -----	1	—	(D)	(D)	(D)	(D)	2	15.3	(D)	(D)	(D)	(D)
Lincoln -----	—	—	—	—	—	—	1	33.9	(D)	(D)	(D)	(D)
Logan -----	—	—	—	—	—	—	—	—	—	—	—	—
McDowell -----	—	—	—	—	—	—	—	—	—	—	—	—
Marion -----	1	—	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Marshall -----	1	31.8	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Mason -----	27	4.9	572	4.5	22 276	5.2	9	8.9	117	10.1	6 135	9.5
Mercer -----	—	—	—	—	—	—	5	13.4	21	13.3	1 352	14.2
Mineral -----	7	11.0	86	14.3	3 035	12.2	19	5.5	179	7.3	8 257	9.2
Mingo -----	—	—	—	—	—	—	—	—	—	—	—	—
Monongalia -----	1	30.8	(D)	(D)	(D)	(D)	7	11.2	80	20.6	4 333	22.3
Monroe -----	26	5.3	(D)	(D)	(D)	(D)	44	4.4	368	4.5	17 248	4.3
Morgan -----	25	4.5	381	6.8	13 998	7.5	14	7.0	111	8.1	6 715	8.9
Nicholas -----	1	38.7	(D)	(D)	(D)	(D)	1	38.7	(D)	(D)	(D)	(D)
Ohio -----	6	8.7	55	9.7	2 412	8.4	16	5.2	174	5.2	9 102	4.7
Pendleton -----	3	14.1	11	17.4	410	19.6	1	29.9	(D)	(D)	(D)	(D)
Pleasants -----	3	21.8	54	22.0	2 910	22.3	—	—	—	—	—	—
Pocahontas -----	2	—	(D)	(D)	(D)	(D)	18	5.4	129	4.6	8 000	4.3
Preston -----	8	9.4	93	3.6	5 170	3.3	80	2.7	737	2.4	46 494	2.5
Putnam -----	3	13.0	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Raleigh -----	—	—	—	—	—	—	5	6.5	33	3.8	2 610	2.4
Randolph -----	—	—	—	—	—	—	15	4.9	160	1.9	6 606	2.7
Ritchie -----	—	—	—	—	—	—	—	—	—	—	—	—
Roane -----	—	—	—	—	—	—	—	—	—	—	—	—
Summers -----	2	19.7	(D)	(D)	(D)	(D)	8	10.2	40	11.7	2 135	12.8
Taylor -----	—	—	—	—	—	—	6	10.6	61	12.9	2 730	13.3
Tucker -----	—	—	—	—	—	—	—	—	—	—	—	—
Tyler -----	1	17.1	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Upshur -----	—	—	—	—	—	—	—	—	—	—	—	—
Wayne -----	1	—	(D)	(D)	(D)	(D)	—	—	—	—	—	—
Webster -----	—	—	—	—	—	—	—	—	—	—	—	—
Wetzel -----	—	—	—	—	—	—	2	17.3	(D)	(D)	(D)	(D)
Wirt -----	1	47.1	(D)	(D)	(D)	(D)	1	47.1	(D)	(D)	(D)	(D)
Wood -----	10	6.3	138	4.0	6 374	4.0	1	—	(D)	(D)	(D)	(D)
Wyoming -----	—	—	—	—	—	—	—	—	—	—	—	—
Geographic area	Selected crops harvested —Con.											
	Tobacco								Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)			
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Pounds	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Tons, dry	Relative standard error of estimate (percent)
<b>West Virginia</b> -	<b>1 003</b>	<b>1.6</b>	<b>2 072</b>	<b>1.6</b>	<b>3 101 002</b>	<b>1.7</b>	<b>13 270</b>	<b>1.1</b>	<b>452 480</b>	<b>.9</b>	<b>753 877</b>	<b>.8</b>
Barbour -----	—	—	—	—	—	—	380	1.0	13 532	1.2	19 934	1.5
Berkeley -----	—	—	—	—	—	—	308	1.4	14 584	1.6	28 772	1.6
Boone -----	7	12.7	8	20.1	9 127	19.9	14	7.9	101	8.9	157	10.2
Braxton -----	—	—	—	—	—	—	255	1.1	8 783	2.1	14 037	2.6
Brooke -----	—	—	—	—	—	—	63	2.2	3 084	2.5	4 671	3.7
Cabell -----	169	2.5	330	4.4	512 229	5.6	180	2.4	3 074	3.3	4 755	3.3
Calhoun -----	—	—	—	—	—	—	141	1.8	3 629	2.2	5 401	2.5
Clay -----	—	—	—	—	—	—	68	2.2	1 490	3.8	2 774	5.8
Doddridge -----	—	—	—	—	—	—	221	1.0	6 430	2.3	8 839	3.7
Fayette -----	—	—	—	—	—	—	152	2.0	4 144	2.5	5 267	2.8
Gilmer -----	—	—	—	—	—	—	174	1.4	6 032	2.4	8 215	2.2
Grant -----	—	—	—	—	—	—	284	1.1	12 140	1.4	20 091	2.0
Greenbrier -----	3	21.3	3	23.3	3 685	22.4	540	1.3	21 217	1.2	40 827	1.3
Hampshire -----	—	—	—	—	—	—	424	1.3	18 911	1.5	31 860	2.0
Hancock -----	—	—	—	—	—	—	53	2.5	1 977	5.4	3 343	6.0
Hardy -----	—	—	—	—	—	—	332	1.3	12 043	1.2	25 249	1.2
Harrison -----	—	—	—	—	—	—	448	1.2	14 308	1.7	20 320	2.3
Jackson -----	75	3.0	131	3.0	199 732	3.0	513	1.2	16 269	2.3	24 418	2.7
Jefferson -----	—	—	—	—	—	—	219	1.3	13 606	1.1	32 428	1.1
Kanawha -----	5	12.9	18	14.5	21 253	15.9	98	2.5	1 571	2.9	2 074	3.3
Lewis -----	—	—	—	—	—	—	291	1.0	11 591	1.5	20 226	2.1
Lincoln -----	186	2.1	488	2.2	654 881	2.2	106	2.9	1 820	3.9	2 745	4.2
Logan -----	4	17.0	7	15.4	11 381	15.7	12	5.5	76	7.1	105	7.2
McDowell -----	—	—	—	—	—	—	4	10.8	80	5.4	58	9.0
Marion -----	—	—	—	—	—	—	271	1.1	7 650	1.7	10 057	2.1
Marshall -----	—	—	—	—	—	—	357	1.2	12 023	1.5	17 977	1.9
Mason -----	266	2.0	505	2.3	825 926	2.4	477	1.4	15 114	1.6	29 294	1.5
Mercer -----	8	13.5	3	15.0	4 408	19.1	367	2.6	7 584	2.8	12 305	2.6
Mineral -----	—	—	—	—	—	—	252	1.2	10 946	1.7	17 758	2.0

See footnotes at end of table.

## C-24 APPENDIX C

## 1992 CENSUS OF AGRICULTURE

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.											
	Tobacco						Hay—alfalfa, other tame, small grain, wild, grass silage, green chop, etc. (see text)					
	Farms		Acres		Quantity		Farms		Acres		Quantity	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Pounds	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)	Number	Tons, dry	Relative standard error of estimate (percent)	
Mingo -----	—	—	—	—	—	—	4	11.8	12	8	11.8	
Monongalia -----	1	30.8	(D)	(D)	(D)	351	1.3	11 094	1.9	17 329	2.1	
Monroe -----	33	5.2	72	7.8	133 684	8.7	486	1.3	17 547	1.5	32 410	1.6
Morgan -----	—	—	—	—	—	—	99	1.6	3 643	3.9	5 547	4.0
Nicholas -----	—	—	—	—	—	—	235	1.4	6 067	1.9	9 138	2.2
Ohio -----	—	—	—	—	—	—	116	1.1	6 350	2.0	9 666	1.9
Pendleton -----	—	—	—	—	—	—	418	1.1	14 094	1.2	28 192	1.2
Pleasants -----	—	—	—	—	—	—	75	3.3	2 310	4.5	3 741	3.9
Pocahontas -----	2	14.1	(D)	(D)	(D)	(D)	288	1.4	11 750	1.4	22 287	1.4
Preston -----	—	—	—	—	—	—	697	1.0	28 503	1.2	50 804	1.0
Putnam -----	181	2.3	384	2.7	528 145	2.3	272	1.8	5 896	3.3	8 812	2.8
Raleigh -----	3	12.0	(D)	(D)	(D)	(D)	201	1.6	5 161	1.8	8 912	2.1
Randolph -----	—	—	—	—	—	—	296	1.1	13 961	1.6	20 343	1.9
Ritchie -----	1	27.8	(D)	(D)	(D)	(D)	253	1.4	9 874	1.7	13 290	1.9
Roane -----	14	6.3	34	7.4	48 939	5.6	372	1.2	12 298	2.2	17 633	2.9
Summers -----	1	39.3	(D)	(D)	(D)	(D)	261	1.4	6 229	2.0	11 055	2.3
Taylor -----	—	—	—	—	—	—	210	1.1	7 592	1.3	13 150	1.3
Tucker -----	—	—	—	—	—	—	145	1.1	5 047	1.8	7 044	2.0
Tyler -----	1	40.0	(D)	(D)	(D)	(D)	202	1.2	6 438	1.5	9 947	2.2
Upshur -----	—	—	—	—	—	—	340	1.1	10 938	1.6	15 014	2.4
Wayne -----	21	5.6	49	5.4	91 118	4.9	114	2.2	2 216	2.8	3 601	2.6
Webster -----	—	—	—	—	—	—	67	3.0	1 275	4.7	2 523	6.9
Wetzel -----	—	—	—	—	—	—	161	1.6	3 967	2.2	4 388	3.3
Wirt -----	14	7.6	21	11.8	30 718	12.0	180	1.3	5 872	1.9	10 010	2.8
Wood -----	8	9.5	7	11.3	10 820	12.3	386	1.1	9 853	1.7	14 410	1.8
Wyoming -----	—	—	—	—	—	—	37	3.8	684	6.3	666	9.6
Geographic area	Selected crops harvested —Con.											
	Land in orchards											
	Farms						Acres					
	Number	Relative standard error of estimate (percent)					Number	Relative standard error of estimate (percent)				
West Virginia -	558	1.7					15 014	.8				
Barbour -----	5	10.9					12	10.4				
Berkeley -----	101	2.4					8 132	.9				
Boone -----	5	12.4					8	18.3				
Braxton -----	15	7.4					44	10.5				
Brooke -----	5	13.4					15	13.7				
Cabell -----	13	9.2					45	18.6				
Calhoun -----	6	14.9					15	17.8				
Clay -----	1	35.0					(D)	(D)				
Doddridge -----	7	8.3					32	15.8				
Fayette -----	4	17.9					6	16.9				
Gilmer -----	7	9.4					11	16.8				
Grant -----	7	10.1					(D)	(D)				
Greenbrier -----	13	9.6					26	12.0				
Hampshire -----	53	3.6					2 336	3.1				
Hancock -----	6	11.6					(D)	(D)				
Hardy -----	8	12.8					14	20.8				
Harrison -----	5	12.9					9	15.1				
Jackson -----	11	9.3					18	11.1				
Jefferson -----	22	5.3					2 497	1.2				
Kanawha -----	2	30.7					(D)	(D)				
Lewis -----	2	20.5					(D)	(D)				
Lincoln -----	11	10.2					19	12.7				
Logan -----	1	—					(D)	(D)				
McDowell -----	5	10.1					175	22.5				
Marion -----	8	8.8					16	10.6				
Marshall -----	6	13.5					37	19.3				
Mason -----	7	12.4					8	12.3				
Mercer -----	17	9.4					33	9.3				
Mineral -----	5	14.8					17	16.7				
Mingo -----	—	—					—	—				
Monongalia -----	10	8.1					23	7.2				
Monroe -----	4	12.4					(D)	(D)				
Morgan -----	15	6.3					509	2.6				
Nicholas -----	19	6.9					82	10.9				
Ohio -----	2	16.4					(D)	(D)				
Pendleton -----	10	9.2					17	10.1				
Pleasants -----	10	10.7					15	11.8				
Pocahontas -----	7	12.0					27	15.2				
Preston -----	14	8.3					37	9.6				
Putnam -----	11	9.0					73	3.4				
Raleigh -----	8	12.3					12	14.7				
Randolph -----	8	10.3					32	22.2				
Ritchie -----	5	15.3					11	18.9				
Roane -----	10	8.7					33	12.1				

See footnotes at end of table.

## 1992 CENSUS OF AGRICULTURE

## APPENDIX C C-25

TIPS [UPF] BATCH\_870 [ACEN,C\_ARLEDGE] 3/14/94 8:52 AM MACHINE: EPCV20 DATA:VOL1\_TIPS\_APX\_55.TIPS;1 \* 3/8/94 06:12:00 TAPE: NReel FRAME: 19  
TIPS:TIPS92-06120940.DAT;1 3/8/94 06:12:17 UFT:TIPS93-06120940.DAT;1 3/8/94 06:12:17 META:VOL1\_TIPS96\_APX\_55.DAT;2 3/8/94 06:13:19

**Table F. Reliability Estimates for the State and County Totals: 1992 —Con.**

[For meaning of abbreviations and symbols, see introductory text]

Geographic area	Selected crops harvested —Con.			
	Land in orchards			
	Farms		Acres	
	Number	Relative standard error of estimate (percent)	Number	Relative standard error of estimate (percent)
Summers -----	8	9.8	21	17.1
Taylor -----	3	15.7	(D)	(D)
Tucker -----	6	11.9	8	13.6
Tyler -----	3	19.5	13	18.7
Upshur -----	21	6.1	52	7.5
Wayne -----	5	15.9	7	16.2
Webster -----	9	10.9	17	13.8
Wetzel -----	4	14.8	33	16.0
Wirt -----	1	30.5	(D)	(D)
Wood -----	3	17.0	4	22.5
Wyoming -----	4	14.3	4	10.8

<sup>1</sup>Data are based on a sample of farms.

**Table G. State Estimates of the Not on the Mail List Component of Farm Coverage Error:  
1992**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text]

Item	Census published farms		Not on mail list <sup>1</sup>		Percent not on mail list <sup>1</sup>	
	Total (number)	Relative standard error of estimate (percent)	Total (number)	Relative standard error of estimate (percent)	Total (percent)	Standard error of percent
Farms ----- number	17 020	1.1	2 402	21.0	12.4	2.4
Land in farms ----- acres	3 267 188	.8	196 674	27.8	5.7	1.5
Average size of farm ----- acres	192.0	.5	81.9	20.3	(X)	(X)
Farms by size:						
Less than 10 acres -----	737	1.9	229	45.7	23.7	8.2
10 to 49 acres -----	2 893	1.6	1 147	30.4	28.4	6.3
Less than 50 acres -----	3 630	1.6	1 376	26.6	27.5	5.4
50 acres or more -----	13 390	1.0	1 026	23.7	7.1	1.6
50 to 99 acres -----	3 727	1.4	469	32.8	11.2	3.3
100 to 179 acres -----	4 060	1.2	264	42.0	6.1	2.4
180 acres or more -----	5 603	.9	294	42.5	5.0	2.0
Harvested cropland ----- farms	14 531	1.1	1 241	22.7	7.9	1.8
acres	555 818	.8	19 920	24.4	3.5	.8
Farms by value of sales:						
Less than \$1,000 -----	3 249	1.6	1 175	25.7	26.6	5.0
\$1,000 to \$2,499 -----	3 678	1.4	748	26.6	16.9	3.7
Less than \$2,500 -----	6 927	1.4	1 923	22.6	21.7	3.8
\$2,500 or more -----	10 093	1.0	479	30.5	4.5	1.3
\$2,500 to \$9,999 -----	6 347	1.2	399	32.2	5.9	1.8
\$10,000 or more -----	3 746	.9	81	90.4	2.1	1.9
Market value of agricultural products sold    ---\$1,000 ---	364 203	.3	4 257	26.3	1.2	.3
Farms by standard industrial classification:						
Crops (01) -----	4 718	1.3	481	29.3	9.2	2.5
Livestock (02) -----	12 302	1.0	1 752	26.4	12.5	3.0
Farms by type of organization:						
Individual or family -----	15 737	1.1	2 218	20.8	12.4	2.4
Partnership or corporation -----	1 203	1.2	144	69.9	10.7	6.7
Other -----	80	3.3	-	(X)	-	(X)
Farms by tenure of operator:						
Full owners -----	12 428	1.2	1 951	21.3	13.6	2.6
Part owners and tenants -----	4 592	1.0	451	32.8	8.9	2.8
Part owners -----	3 866	1.0	377	36.3	8.9	3.1
Tenants -----	726	1.6	75	65.6	9.3	5.5
Operators by place of residence:						
On farm operated -----	13 053	1.1	1 548	25.2	10.6	2.6
Not on farm operated -----	2 629	1.3	318	47.7	10.8	4.3
Not reported -----	1 338	1.4	536	31.5	28.6	6.4
Operators by principal occupation:						
Farming -----	7 169	1.0	678	34.0	8.6	2.6
Other -----	9 851	1.2	1 514	28.1	13.3	3.4
Operators by sex:						
Male -----	15 541	1.1	1 981	23.4	11.3	2.4
Female -----	1 479	1.4	421	42.0	22.2	7.3
Operators by race:						
White -----	16 976	1.1	2 192	21.9	11.4	2.3
Black and other races -----	44	4.8	-	(X)	-	(X)
Operators by years on present farm:						
4 years or less -----	1 575	1.6	384	37.9	19.6	5.9
5 years or more -----	11 818	1.1	949	31.0	7.4	2.2
Average years on present farm -----	21.2	1.5	14.2	35.6	(X)	(X)
Not reported -----	3 627	1.2	1 070	25.4	22.8	4.5
Average age of operator -----	56.4	.1	52.2	21.2	(X)	(X)

NOTE: These estimates do not account for incorrectly classified farms or farms appearing more than once in the census and are subject to change in the 1992 Coverage Evaluation publication. See appendix C text for further explanation.

<sup>1</sup>Estimates are based on a sample survey conducted independently of census data collection.